

# TABLE OF CONTENTS

## *Volume I*

Profile of Lebanon Valley College .....	2
About the Catalog .....	3
Mission of Lebanon Valley College .....	3
Accreditation .....	3
Statement of Non-discrimination .....	4
Graduation Rates .....	4
Undergraduate Information .....	5
Admission for Full-time Students .....	5
Continuing Education (Part-time Admission) .....	8
Veteran's Services .....	8
Undergraduate Academic Regulations and Procedures .....	10
Degrees .....	10
Graduation Requirements .....	11
Nontraditional Credit .....	17
Grading System .....	19
Undergraduate Academic Programs .....	24
General Education .....	24
Cooperative Programs .....	28
Pre-professional Programs .....	29
Individualized Major .....	31
Internships .....	31
Independent Study .....	32
Tutorial Study .....	32
Special Topics Courses .....	32
Study Abroad .....	33
Undergraduate Departments and Programs .....	34
Continuing Education Programs .....	84
Graduate Academic Programs .....	86
Campus Map .....	96
Index .....	98
Phone Numbers .....	101
2011–2012 Academic Calendar .....	102

## *Volume II (Available online only at [www.lvc.edu/catalog](http://www.lvc.edu/catalog))*

### Course Descriptions

### Directory

    Board of Trustees

    Administration

    Faculty

    Support Staff

### Awards

# LEBANON VALLEY COLLEGE

**Founded:** 1866, as a private coeducational institution on the site of the Annville Academy. Became a four-year institution by 1883 as the lower grades were phased out.

**Curriculum:** a four-year program of study in the liberal arts with an academic year comprised of fall and spring semesters and an optional summer term.

**Degrees granted:** Bachelor of Arts, Bachelor of Music, Bachelor of Science, Bachelor of Science in Chemistry, Bachelor of Science in Medical Technology, Associate of Arts, Associate of Science, Master of Business Administration, Master of Music Education, Master of Science Education, Doctor of Physical Therapy.

**Major fields of study:** accounting, actuarial science, American studies, art and art history, biochemistry and molecular biology, biology, business administration, chemistry, computer science, digital communications, criminal justice, economics, early childhood education, English, French, German, health-care management, health science, historical communications, history, international studies, mathematics, medical technology, music, music business, music education, music recording technology, philosophy, physical therapy, physics, political science, psychobiology, psychology, religion, sociology, Spanish, special education.

**Special programs:** secondary education certification; *in cooperation with The Pennsylvania State University and Case Western Reserve University:* engineering; *in cooperation with approved hospitals:* medical technology.

**Special options:** departmental honors, double majors, independent study, individualized majors, internships, tutorial study, study abroad, Philadelphia and Washington semester programs.

**Number of full time faculty:** 101; of the permanent faculty, 87 percent have earned a Ph.D. or equivalent terminal degree.

**Student-faculty ratio (FTE):** 13:1, with an average class size of 20.

**Location:** Annville, founded in 1799, is a small town of approximately 5,000 people located in south central Pennsylvania. Driving times: Hershey, 10 minutes; Harrisburg, 1/2 hour; Baltimore, 2 hours; Philadelphia, 2 hours; New York, 3 hours; Washington, D.C., 3 hours.

**Size of campus:** 49 buildings. The library contains over 237,000 catalog items.

**Residence halls:** 29 residential facilities housing 1,276 students in male, female, coed, suite and apartment-style facilities.

**Student enrollment:** 1,611 full-time undergraduate students, with 165 part-time undergraduates and 289 graduate students.

**Student financial aid:** approximately 95 percent of full-time students receive financial aid in the form of LVC grants and academic scholarships. In 2010–2011, these awards totaled \$22,325,410 with the average per student totaling \$13,671.

## **ABOUT THE CATALOG**

Attendance at Lebanon Valley College is a privilege, not a right. To provide the necessary atmosphere in which teaching and learning can occur, the College expects that the conduct of all campus citizens will conform to accepted standards. The College has the right to require the withdrawal of any student whose actions are inimical to the purposes of the institution. The regulations provided in this catalog are announcements and do not constitute a contract between the student and the College. The College reserves the right to change these regulations and procedures as it deems necessary for the accomplishment of its purposes, but wherever possible, a student will proceed to graduation under the regulations in effect at the time of his or her entrance at the College.

## **THE MISSION OF THE COLLEGE**

Lebanon Valley is a small, private, liberal arts college. Its mission arises directly from its historical traditions and a relationship with the United Methodist Church.

The College's aim is to enable our students to become people of broad vision, capable of making informed decisions, and prepared for a life of service to others. To that end, we seek to provide an education that helps students acquire the knowledge, skills, attitudes and values necessary to live and work in a changing, diverse and fragile world.

Through both curricular and co-curricular activities, we endeavor to acquaint our students with humanity's most significant ideas and accomplishments, to develop their abilities to think logically and communicate clearly, to give them practice in precise analysis and effective performance, and to enhance their sensitivity to and appreciation of differences among human beings.

Lebanon Valley College aspires to pursue this mission within a community in which caring and concern for others is a core value. We value strong and nurturing faculty interacting closely with students; encourage individual student development; and affirm the interrelatedness of liberal learning and the ideal of vocation. We regard the cultivation of wisdom that is the capacity of judging rightly in matters of life and conduct, and a lifelong love of learning as the ultimate reward of the educational experience.

## **ACCREDITATION**

Lebanon Valley College is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools, 3624 Market Street, 2nd Floor West, Philadelphia, PA 19104; telephone: 267-284-5000.

Lebanon Valley College is also approved by the Pennsylvania Department of Education.

Several of Lebanon Valley College's programs are individually accredited: the Doctor of Physical Therapy degree program by the Commission on Accreditation in Physical Therapy Education; accounting, business, and economics programs by the Accreditation Council for Business Schools and Programs; music programs by

the National Association of Schools of Music; and chemistry programs by the American Chemical Society.

Lebanon Valley College is on the approved list of the Regents of the State University of New York and of the American Association of University Women.

Lebanon Valley College is a member of the following: American Association of Colleges; National Association of Independent Colleges and Universities; Pennsylvania Foundation for Independent Colleges; College Entrance Examination Board; College Scholarship Service; Council of Independent Colleges; National Collegiate Athletic Association; Middle Atlantic States Collegiate Athletic Conference; Penn-Mar Athletic Conference; Central Pennsylvania Field Hockey Association; Eastern College Athletic Conference.

## **STATEMENT ON NON-DISCRIMINATION**

Lebanon Valley College does not discriminate on the basis of race, color, religion, gender, national origin, age, sexual orientation, or disability in its programs or activities. The College is committed to a policy of equal opportunity in all aspects of employment, including application, promotion, and transfer. Anyone who believes that he/she has been subjected to discrimination in violation of this policy is encouraged to report the problem to the director of human resources/EEO/Title IX Coordinator or the vice president for academic affairs/dean of the faculty.

## **GRADUATION RATES**

Lebanon Valley College participates in student financial assistance programs under Title IV of the Higher Education Act of 1965. According to the requirements of the Student Right-to-Know legislation, the College is required to report annually the graduation rates within 150 percent of the normal time to complete a degree to students and prospective students.

The cohort of 416 full-time, first-time degree-seeking undergraduates who entered Lebanon Valley College in the fall of 2004 consisted of 195 men and 221 women. At the end of four years, 287 had completed a bachelor's degree. At the end of the fifth year, another 17 had completed a bachelor's degree. By 2010, at the end of the sixth year, an additional 2 students had completed a bachelor's degree. The Student Right-to-Know Completion or Graduation Rate Calculation for the 2004 cohort is 74 percent. This information has been submitted to the U.S. Department of Education.

Detailed information on student retention and graduation rates is available in the Office of the Registrar.

# UNDERGRADUATE INFORMATION

## Admission for Full-time Students

### *High School Preparation*

All admission candidates should have completed 16 credit units in a college preparatory program and graduated from an accredited secondary school, or present an equivalency certificate (G.E.D.). Of the 16 units, 4 should be in English, 2 in foreign language, 3 in mathematics, 3 in science, and 3 in social studies.

### *Application Procedure*

A candidate for admission to Lebanon Valley College must submit a completed application with the application fee and an official transcript of high school grades. Submission of S.A.T. or A.C.T. results is optional. Students wishing to transfer to Lebanon Valley must submit official transcripts of completed postsecondary work and a College Record Form for each institution attended, in addition to a final high school transcript.

Candidates are encouraged to visit campus for a personal interview. Applicants for admission to certain academic programs (music and physical therapy majors) are required to undergo additional steps. Students are encouraged to view additional details and use the on-line application documents located at the Full-time Admission link on our home-page, [www.lvc.edu](http://www.lvc.edu). For further information, contact:

#### **Admission Office**

Lebanon Valley College

101 North College Avenue

Annville, PA 17003-1400

Phone: 717-867-6181 or 1-866-LVC-4ADM

FAX: 717-867-6026

Internet: <http://www.lvc.edu>

E-mail: [admission@lvc.edu](mailto:admission@lvc.edu)

### *Student Finances*

Payment for tuition, room, board and other charges is due by a published deadline prior to the beginning of each semester. Students failing to meet this deadline will be required to make special arrangements with the Business Office before their course registrations will be processed. Questions about charges and payments should be addressed to the Business Office.

### *Refund Policy for Full-time Students*

#### **Treatment of Title IV (Federal) Aid When a Student Withdraws**

Lebanon Valley College is required by federal statute to determine how much financial aid was earned by students who withdraw, drop out, are dismissed, or take a leave of absence prior to completing 60 percent of a payment period or term. The Title IV programs that are covered by this statute are: Federal Subsidized and Unsubsidized Stafford Loans, Federal Perkins Loans, Federal PLUS Loans, Federal Pell Grants, Academic Competitiveness Grants, National Smart Grants, Federal Supplemental Educational Opportunity Grants (FSEOGs), Fed-

eral TEACH Grants, and in some cases, certain state grant aid to students.

For a student who withdraws after the 60 percent point-in-time, there are no unearned funds. However, a school must still complete a return calculation in order to determine whether the student is eligible for a post-withdrawal disbursement. The calculation is based on the percentage of earned aid using the following Federal Return of Title IV funds formula:

Percentage of payment period or term completed = the number of days completed up to the withdrawal date divided by the total days in the term. (Any break of five days or more is not counted as part of the days in the term.) This percentage is also the percentage of earned aid.

Funds are returned to the appropriate federal program based on the percentage of unearned aid using the following formula:

Aid to be returned = (100 percent of the aid that could be disbursed minus the percentage of earned aid) multiplied by the total amount of aid that could have been disbursed during the payment period or term.

If a student earned less aid than was disbursed, the institution would be required to return a portion of the funds and the student would be required to return a portion of the funds. Keep in mind that when Title IV funds are returned, the student borrower may owe a debit balance to the institution. If a student earned more aid than was disbursed to him/her, the institution would owe the student a post-withdrawal disbursement which must be paid within 120 days of the student's withdrawal. The institution must return the amount of Title IV funds for which it is responsible no later than 45 days after the date of the determination of the date of the student's withdrawal.

Refunds are allocated in the following order:

- Unsubsidized Federal Stafford Loans
- Subsidized Federal Stafford Loans
- Federal Perkins Loans
- Federal Parent (PLUS) Loans
- Federal Pell Grants for which a Return of funds is required
- Academic Competitiveness Grants for which a return of funds is required.
- National Smart Grants for which a return of funds is required.
- Federal Supplemental Opportunity Grants for which a return of funds is required.
- Federal TEACH Grants for which a return of funds is required.

There are some Title IV funds that you were scheduled to receive that you cannot earn once you withdraw because of other eligibility requirements. For example, if you are a first-time, first-year undergraduate student and you have not completed the first two weeks of your program before you withdraw, you will not earn any Stafford Loan funds that you would have received had you remained enrolled past the second week. If you receive (or Lebanon Valley College or your parent receive on your behalf) excess Title IV program funds that must be returned, Lebanon Val-

ley College must return a portion of the excess equal to the lesser of: 1) your institutional charges multiplied by the unearned percentage of your funds, or 2) the entire amount of excess funds.

The school must return this amount even if it didn't keep this amount of your Title IV program funds. If Lebanon Valley College is not required to return all of the excess funds, you must return the remaining amount. Any loan funds that you must return, you (or your parent for a PLUS Loan) repay in accordance with the terms of the promissory note. That is, you make scheduled payments to the holder of the loan over a period of time.

Any amount of unearned grant funds that you must return is called an overpayment. The amount of a grant overpayment that you must repay is half of the unearned amount. You must make arrangements with Lebanon Valley College or the Pennsylvania Department of Education to return the unearned grant funds.

NOTE: The federal government requires that all full-time students make satisfactory academic progress toward a degree or certificate. Please visit <http://www.lvc.edu/financial-aid/> to view the Academic Progress Policy and Requirements.

### **Treatment of Non-Title IV Aid When a Student Withdraws**

Lebanon Valley College follows guidelines for Title IV programs (see above) when calculating the amount of institutional and/or state aid and/or private loans/scholarships that you have earned up to the point of withdrawal. Types of aid covered by this policy include, but are not limited to: Presidential Scholarships (such as Vickroy, Leadership and Achievement Awards), LVC Grant-In-Aid, institutional scholarships, PHEAA State Grant, and/or any other state administered grant funds.

When you withdraw during your period of enrollment the amount of non-Title IV assistance that you have earned up to that point is determined by the same specific formula used to calculate Title IV funds earned. If you receive more assistance than you earned, the excess funds must be returned by Lebanon Valley College and/or you.

Once you have completed more than 60 percent of the period of enrollment, you earn all the assistance that you were scheduled to receive for that period.

### **Treatment of Institutional Charges When a Student Withdraws**

Lebanon Valley College follows guidelines for Title IV programs (above) when calculating the amount of unearned institutional charges to be refunded. Charges eligible for refund are tuition, room, board\*, private music lessons and overload charges. Once a student has completed more than 60% of the period of enrollment, he or she has earned all of the charges billed for that period.

\*All Gold-, Silver-, and Bronze-level meal plans for Annville students include \$50 flex dollars to be used in LVC dining facilities. If a student withdraws prior to the semester end, LVC will refund unused flex dollars. In the case of student withdrawal, the \$50 flex dollars will be considered separate from the remainder of the board plan for refund purposes.

### *Refund Policy for Part-time Students*

Part-time students should consult the refund schedule published by the Continuing Education Office. However, part-time students receiving federal financial assistance (Title IV) will receive a refund according to federal policy as noted above.

### *Alternative Payment Plan*

Lebanon Valley College offers a payment plan for those families who, after exploring other options, prefer to spread payments over a 10-month period. An agent has been appointed to process deferred payment applications:

#### **Higher Education Services**

4720 Carlisle Pike

Mechanicsburg, PA 17050

Phone: 1-800-422-0010

## **Continuing Education (Part-time Admission)**

Students may enroll part time for undergraduate study at Lebanon Valley College through the Office of Graduate Studies and Continuing Education. Students are considered part time if they are enrolled in 1–11 credit hours per semester. A list of programs offered through Continuing Education can be found on page 84.

Part-time students enrolled through Continuing Education may register for courses offered during the day, evening, Saturday and summer sessions on the main campus in Annville. To obtain copies of course schedules or to get detailed information on all academic programs for part-time students, call 717-867-6213 or toll free at 1-877-877-0423. Information is also available through the LVC website: [www.lvc.edu/ce](http://www.lvc.edu/ce).

A candidate for admission to any of Lebanon Valley College's Continuing Education certificate or degree programs must submit a completed application form with the required application fee. An official high school transcript is required if students have fewer than 24 semester hours of transferable college credits. Students planning to transfer to Lebanon Valley must submit official transcripts of all completed college or university courses. Official transcripts relating to military or business courses also may be evaluated for possible transfer credit. Although candidates may begin taking classes before they have been accepted, they must speak with an advisor before registering for courses. To arrange an admission interview with an advisor, call 717-867-6213 in Annville or toll free at 1-877-877-0423. Decisions on all part-time student applications usually are made within one month after the last required transcript is received.

## **Veterans' Services**

### **Servicemembers Opportunity Colleges**

Lebanon Valley College has been designated as an institutional member of Servicemembers Opportunity Colleges (SOC), a group of over 400 colleges providing post-secondary education to members throughout the world. As an SOC member, Lebanon Valley College recognizes the unique nature of the military life-style and



has committed itself to easing the transfer of relevant course credits, providing flexible residency requirements, and crediting learning from appropriate military training and experiences.

### **Veterans Benefits**

Students receiving educational benefits provided by the Department of Veteran Affairs (DVA) must report their enrollment to the Financial Aid Office upon registration each semester or summer session. The Financial Aid Office will then submit certification of enrollment to the DVA. Students should complete the FAFSA and the financial aid process each year according to the school's requirements and deadlines. Students receiving EAP and/or FTA benefits are responsible for applying for these benefits through their unit of assignment prior to the start of each semester or summer session and for submitting all necessary forms to the Financial Aid Office.

Students must notify the Financial Aid Office immediately if they change the number of credits for which they are enrolled, withdraw, or request a leave of absence. Failure to do so may result in a charge to the student from the DVA for overpayment of benefits. For more information on veterans benefits, please visit the LVC financial aid web page: [www.lvc.edu/financial-aid/military-benefits.aspx](http://www.lvc.edu/financial-aid/military-benefits.aspx).

# UNDERGRADUATE ACADEMIC REGULATIONS AND PROCEDURES

## Degrees

### *Baccalaureate Degrees*

Lebanon Valley College confers five baccalaureate degrees. Bachelor of Arts for students completing requirements in the following major programs: American studies, art and art history, criminal justice, economics, English, French, German, historical communications, history, international studies, music, music business, philosophy, political science, religion, sociology, Spanish and certain individualized majors.

Bachelor of Science for students completing requirements in the following major programs: accounting, actuarial science, biochemistry and molecular biology, biology, business administration, chemistry, computer science, cooperative engineering, cooperative forestry, digital communications, early childhood education, elementary education, health-care management, health science, mathematics, music education, physics, psychobiology, psychology and certain individualized majors. Bachelor of Science in Chemistry, Bachelor of Science in Medical Technology, and Bachelor of Music: emphasis in music recording technology for students completing requirements for the appropriate major program.

### *Associate Degrees*

An Associate's degree may be earned by students who have been admitted through the Office of Graduate Studies and Continuing Education and who have pursued the degree through part-time study. Students may earn an Associate of Science degree in accounting, general studies and business administration or an Associate of arts degree in general studies.

## Privacy of Student Records

The Family Educational Rights and Privacy Act of 1974 (FERPA), also known as the Buckley Amendment, helps protect the privacy of student records. The Act provides for the right to inspect and review educational records, to seek to amend those records, and to limit disclosure of information from the records. The Act applies to all institutions that are the recipients of federal funding.

Annually, Lebanon Valley College informs students of the Family Educational Rights and Privacy Act of 1974, as amended. This Act, with which the institution intends to comply fully, was designated to protect the privacy of education records, to establish the right of students to inspect and review their education records, and to provide guidelines for the correction of inaccurate or misleading data through informal and formal hearings.

Students also have the right to file complaints with the FERPA office concerning alleged failures by the institution to comply with the act.

Local policy explains in detail the procedures to be used by the institution for compliance with the provisions of the Act. Copies of the policy can be found in the following offices: Office of the Registrar, Office of Student Services, and Of-

fice of the Dean of the Faculty. The policy is also printed in the Faculty Advising Handbook. The offices mentioned also maintain a Directory of Records that lists all education records maintained on students by this institution.

Questions concerning the Family Educational Rights and Privacy Act may be referred to the Registrar's Office.

## **Credit Hours**

A credit hour is the unit to measure academic progress. Each course has a credit designation approximately equal to the number of hours to be spent in class each week. A course requiring three hours of class attendance each week will carry 3 credit hours. Credit for laboratories is generally awarded at one half the regular rate.

## **Application for Graduation**

As a student nears completion of the degree requirements, the student must file an application for the degree and a graduation plan with the Registrar's Office. Graduation application deadlines and the semester Course List and Registration Schedule are available in that office. This application process provides the student with a timely opportunity to review his or her degree requirements and to plan or change the student's course schedule to ensure completion of all requirements.

The student must complete an Application for the Degree and a Graduation Plan, meet with his or her advisor, obtain all required signatures for graduation, including major and minor requirements, and deliver the forms to the Registrar's Office in the Humanities Building.

## **Graduation Requirements**

Candidates for a baccalaureate degree shall complete successfully 120 credit hours, including the requirements for the general education program (see page 24) and the requirements for majors and minors as appropriate. Credit hours are accumulated in three separate categories: general education requirements, major requirements, and electives.

The general education program is that part of the curriculum shared by all students in all majors. The required courses reflect 54-56 credit hours. The major programs each require at least 30 credit hours of course work. Electives are those courses selected by the student that reflect neither major nor general education requirements.

Candidates for the bachelor's degree must also take in residence 30 credit hours of the 36 taken immediately prior to graduation. Course work taken in all of the College's programs qualifies as work done in residence.

Candidates for an associate's degree must accumulate at least 60 credit hours including the course work appropriate to their major program. Fifteen of the last 18 credit hours toward the degree must be taken in residence. Coursework taken in all of the College's programs qualifies as work done in residence.

Candidates for a degree must obtain a cumulative grade point average of at least 2.00 and a major grade point average of at least 2.00. Additional majors and any

minors also require a 2.00 grade point average.

Students who have 11 or fewer credits remaining to complete the degree may participate in the graduation ceremony.

### **Advising Program**

Each student has a faculty advisor whose role is to counsel about registration procedures, course selections, academic requirements, and regulations. The student is strongly encouraged to obtain the advisor's counsel and approval before registration, withdrawal, election of pass/fail option, and/or change in credit/audit status.

### **Arrangement of Schedules**

Each student arranges a semester program of courses in consultation with his or her faculty advisor. Students already in attendance do this during registration periods. New students accomplish this on orientation days.

### **Limit of Hours**

To be classified as full time, a student must take at least 12 credit hours in a semester. Seventeen credit hours is the maximum permitted without approval from the student's advisor and permission of the registrar. To be permitted to take more than 17 credits, the student should have a cumulative grade point average of 3.0 or higher, or be a senior. Audited courses are counted in determining the course load, but music organizations are not. Students shall pay the prevailing tuition rate for each credit hour beyond 17 (not counting music organizations).

### **Class Standing**

Students are classified academically at the beginning of each year. Membership in the sophomore, junior or senior classes is granted to students who have earned a minimum of 28, 56 or 84 credit hours respectively.

### **Satisfactory Academic Progress**

Satisfactory academic progress toward a degree as a full-time student is defined as completion of 24 or more credits per academic year while maintaining a cumulative grade point average of 1.6 (1–27 credits), 1.7 (28–55 credits), 1.8 (56–83 credits), 1.9 (84 or more). A 2.0 grade point average is required for completion of the baccalaureate degree. It is also necessary for full-time students to complete at least 24 credits per academic year in order to maintain eligibility for federal, state and institutional financial aid.

### **Transfer Credit**

A student applying for advanced standing after having attended another accredited institution shall send an official transcript to the Admission Office. If requested, the student must provide copies of the appropriate catalogs for the years of attendance at the other institution or institutions.

Credits are accepted for transfer provided the grades are C– (1.67) or better, the work is equivalent or similar to work offered at Lebanon Valley College, and the

institution is regionally accredited. Grades thus transferred count for credit hours only, not for quality points.

A candidate for admission holding an associate degree from a regionally accredited college can be admitted with full acceptance of course work at the previously attended institution. However, course work in the major field for which the applicant has received a D shall not be counted toward fulfilling the major requirement.

Because Lebanon Valley College is a liberal arts institution, consideration of full acceptance of the associate degree will be granted with the understanding that the candidate has followed a basic course of study compatible with the curriculum and academic programs of the College and has been enrolled in a transfer program. A total of 60 credits will be accepted for an associate degree and 57 credits for a diploma program. A maximum of 90 credit hours will be accepted toward a baccalaureate degree.

In most instances the applicant may be expected to complete the baccalaureate degree within two years. However, when the requirements of a particular major field or the nature of the previous study demand additional work beyond two years, the applicant will normally be notified at the time of admission.

Students transferring to Lebanon Valley College in order to complete work on a baccalaureate degree will normally be expected to pass at least one 3-hour course in their intended major for each semester they spend at the college. "Semester" shall normally be defined as 15 credit hours. Beyond this minimum requirement, departments may require additional courses if they so desire.

Lebanon Valley College students enrolled for a degree may not carry courses concurrently at any other institution without prior consent of their advisors and the registrar. Students who desire to study away from campus for summer study must obtain prior approval from their advisors and the registrar.

### **Discontinuance of Courses**

The College reserves the right to withdraw or discontinue any course.

### **Registration and Preregistration**

Students are required to register for courses on designated days of each semester. Preference is given to upper-class students in the preregistration process to ensure registration in courses required for their major fields of study. Students desiring to register later than one week after the opening of the semester will be admitted only by special permission of the instructor and the registrar.

On entering Lebanon Valley College, students indicate that they are open or that they have a particular intended major. Students may make a formal declaration of major during the second semester of their freshman year and must make a formal declaration by the time they have completed 60 credit hours.

### **Change of Registration**

Change of registration, including pass/fail elections, changes of course hours credit, changes from credit to audit and vice versa, must be approved by signature of the advisor. In most instances, registration for a course shall not be permitted

after the course has been in session for one full week. With the permission of the advisor, a student may withdraw from a course during the first 10 weeks of the semester. However, first-time, first-semester freshmen may withdraw from a course at any time through the last day of semester classes with permission of the advisor. A fee is charged for every course added at the student's request after the publicized Add/Drop Period (the first full week of classes).

Students who drop below full-time status (below 12 credits) during the Add/Drop Period will be re-billed as part-time students. Resident students who drop to part-time *must* have the permission of the associate dean of student affairs. Other considerations regarding financial aid, academic progress, and health insurance must be made before dropping to part-time status.

Students who drop courses after the publicized Add/Drop Period will not have their status changed to part-time. However, consideration must be given to academic progress and future eligibility for financial aid and scholarship monies.

Students enrolled in courses meeting during the summer or for an abbreviated period during fall and spring semesters may drop a course before the second class meeting. Thereafter, students may withdraw from a course up to the first two-thirds of the course.

### **Auditing Courses**

Students may register to audit courses with the approval of their academic advisor. Audited courses are counted in considering the course load relative to the limit of hours and may result in an overload charge. No grade or credit is given for an audited course, but the registrar will record the audit on the transcript if the student attends regularly. A change of registration from credit to audit or from audit to credit, with the approval of the instructor, must be accomplished by the end of the tenth week of semester classes.

### **Pass/Fail**

After attaining sophomore standing (28 credit hours), a student may elect to take up to two courses per semester and one per summer session on a pass/fail basis; however, only six such courses can be counted toward graduation requirements. No courses elected by students to be taken pass/fail may be used to meet the requirements of the general education program or other programs, the major(s), the minor(s) or secondary education certification. A student may select or cancel a pass/fail registration any time during the first 10 weeks of a semester, or up to the first two-thirds of a course meeting during the summer or for an abbreviated period during fall and spring semesters. Passing with honors will be designated by the grade PH indicating that a grade of B+ or higher was earned. If a student does not pass the course, the student will receive an F on the transcript. See page 18 for grading systems.

### **Repetition of Courses**

A student may repeat as often as desired, for a higher grade, a previously taken course, subject to the following provisions: the course must have been taken in courses staffed by the College, the course has to be retaken at Lebanon Valley Col-

lege, and the semester credit hours are given only one time. The higher grade received each time taken is computed in the cumulative grade point average. Each semester grade report will show hours credit each time passed, but the total hours toward a degree will be equal only to the semester hours credit for the course. For a course previously passed P/F, the grade received in the subsequent registration for regular grade is the “higher grade.” Each grade received remains on the permanent record and a notation is made thereon that the course has been repeated.

### **Concurrent Courses**

A student enrolled for a degree at Lebanon Valley College may not carry courses concurrently at any other institution without prior consent of his or her advisor and the registrar.

### **External Summer Courses**

A student registered at Lebanon Valley College may not obtain credit for the courses taken during the summer at another college unless such courses have prior approval of his or her advisor and the registrar.

### **Attendance Policy**

Each student is responsible for knowing and meeting all requirements for each course, including regular class attendance. At the opening of each semester, the instructors shall clearly inform students of class attendance regulations. Violations of those regulations shall make the student liable to receive a grade of F in the course.

Excused absences do not absolve students from the necessity of fulfilling all course requirements.

### **In-Absentia**

The College treats students in domestic or foreign study programs as students-in-absentia. Any student who studies for a semester or academic year at another institution with the intent of returning to the College is considered a matriculated student. A student desiring in-absentia status should complete the form in the Registrar’s Office and secure the approval of the advisor, the registrar and the director of study abroad and domestic programs. Students will receive information on registration and room sign-up after they notify the registrar of their address abroad or in the United States.

### **Leave of Absence**

For reasons of health or other compelling circumstances, students may request a voluntary leave from the College for one or two semesters. The option to take a leave of absence is usually only available to students who have attended classes past the add/drop period of their first semester. Prior to the end of the drop/add period new students should contact the Admission Office to learn what the options are for re-enrollment.

A student desiring a leave of absence should complete the form available from the Registrar’s Office and secure the approval of the associate dean of academic

affairs. Students on leave are regarded as continuing students and retain their status for registration and room sign-up, if available. Students on leave will receive information on those procedures and will be asked to verify their return. The College reserves the right to require a leave of absence for medical reasons at any time it is deemed reasonably necessary to protect the student, other students, members of the College community, or the interests of the College itself. Before a student returns from a medical leave of absence, a clearance interview with one of the counseling psychologists, the associate dean of student affairs, or the associate dean of academic affairs—as well as additional documentation—may be required.

### **Withdrawal from College and Readmission**

To withdraw from the College, a student must complete an official withdrawal form obtained from the Registrar's Office. Continuing education students must complete an official withdrawal form obtained from the Office of Continuing Education. Readmission of a student requires written permission from the associate dean for academic affairs.

### **Second Bachelor's Degrees**

A person who has earned a bachelor's degree from Lebanon Valley College or another accredited college or university may earn a second bachelor's degree by meeting the following requirements:

1. A minimum of 30 additional undergraduate credits must be completed successfully at Lebanon Valley.
2. All graduation requirements for the major of the second degree must be met satisfactorily.
3. Course work completed successfully as part of the first degree program may be used to satisfy the graduation requirements of the second major
4. No course already taken in the first degree program may be repeated in the second degree program.
5. No more than three credits from student teaching (SED 440, ECE 440, ELM 440 and MED 441) may be counted toward a second degree.
6. Graduates from other accredited colleges or universities shall not be required to meet any general education requirements of Lebanon Valley College.
7. No courses in the second degree program may be met satisfactorily through such non-traditional means as challenge examinations, CLEP, or credit for life experience.
8. No more than three credits from internships may be counted toward a second degree.
9. No courses in the second degree program may be taken pass/fail.

**NOTE: Students carrying a second major do not automatically receive a second degree. Student carrying a second major will not receive a second degree without having met all the requirements listed above for a second bachelor's degree.**



## **Undergraduate Nontraditional Credit**

Lebanon Valley College recognizes the ability of highly motivated students to master specific areas of study on their own initiative and provides programs to allow these students the opportunity to gain credit. Except for those seeking a second bachelor's degree, any matriculated student may earn a maximum of 30 credits toward a bachelor's degree or a maximum of 15 credits toward an associate's degree through nontraditional means (challenge exams, advanced placement, CLEP, and credit for life experience). All nontraditional means of examination are graded satisfactory (S) or unsatisfactory (U). An unsatisfactory grade on any nontraditional examination will not be recorded on the permanent record.

### **Challenge Exam Policy**

Many LVC courses can be challenged for credit by examination. Full-time students should request challenge examinations through their academic advisors. Part-time students and those students enrolled through continuing education should make application for challenge exams through the Continuing Education Office. All requests must be approved by the registrar and the chairperson of the department in which the course is listed.

Challenge exams are considered comprehensive examinations in the subject area. The grading criteria for challenge exams will be determined by each department. The exact nature of the examination will be determined by the faculty member and chairperson of the department involved and may include any means of evaluation normally employed by the department. There is a fee for preparation and grading of each challenge exam, and it is charged without regard to the test results.

Challenge exams may not be taken by students who have received any grade in a course equivalent to or more advanced than the course for which the student is requesting credit by examination. Challenge exams may not be used for the purpose of acquiring credit for a course previously failed. Practicums, internships, seminars, research courses, independent study, writing-intensive courses, and courses with laboratory components are normally not subject to credit by examination. Individual departments may have additional criteria regarding challenge exams. Consult the chairperson of the department in which the course is listed for specific information.

### **Advanced Placement Policy**

Advanced placement with credit in appropriate courses will be granted to entering students who make scores of 4 or 5 on College Board Advanced Placement examinations. The official Advanced Placement *College Grade Report* must be submitted by the student for evaluation by the registrar.

Advanced Placement without credit may be granted on the basis of the Achievement Tests of the College Board examinations or such other proficiency tests as may be determined appropriate by the registrar and by the chairperson of the department.

## **CLEP (College Level Examination Program) Policy**

Credit shall be granted to those students who score well on CLEP examinations that are approved by the College. To receive credit, a student must score above the 50th percentile on the objective section and above a C, as determined by the appropriate academic department for general and subject examinations. The English composition essay is required to receive credit for English Communications with a minimum score of 64 and at the 80th percentile for this CLEP examination. Credit for foreign language at the intermediate level requires a minimum score of 62 (for French), 63 (for German), and 66 (for Spanish) on Level 2 tests.

A maximum of six credits shall be awarded for each examination; of these credits, only three may be applied to the general education requirements in the appropriate area. Credit shall be granted only to students who have matriculated at Lebanon Valley College. Normally, requests for CLEP credit must be approved by the registrar before the student has completed 30 credits.

## **Credit for Life Experience Policy**

Lebanon Valley College provides for the awarding of undergraduate academic credit for knowledge acquired through nonacademic experience in subjects in the College curriculum. The experience should have a direct relation to the material taught in a course in the College curriculum and should extend over a sufficient period to provide substantive knowledge in the relevant area. Matriculated students who believe they qualify for such credit may petition the appropriate department through their academic advisors. Students enrolled in the continuing education program must petition through the Continuing Education Office. This petition must:

- (1) detail the relevant experience in question
- (2) provide appropriate supporting evidence
- (3) note the equivalent College course by department and number
- (4) state the number of credit hours sought.

The appropriate department will consult with the academic advisor or the Continuing Education Office to determine the best means (interview, examination, portfolio, etc.) for evaluating the experience.

Approval of experiential credit for full-time students must be made in writing over the signatures of the academic advisor, the appropriate department chair, and the associate dean for academic affairs. Approval of experiential credit for students enrolled through the continuing education program must be made in writing over the signatures of the director of graduate studies and continuing education, the appropriate department chair, and the associate dean for academic affairs.

Experiential credit cannot exceed 6 credit hours in one academic year and cannot exceed a maximum of 12 credit hours in the degree program.

## **International Baccalaureate Program**

Credit for appropriate courses will be granted to entering students who achieve scores of 5, 6 or 7 on International Baccalaureate individual subject examinations.

The official International Baccalaureate transcript must be presented by the student for evaluation by the registrar.

## **Grading Systems and Grade Point Averages**

Student work is graded A (excellent), B (good), C (satisfactory), D (requirements and standards met a minimum level), F (course requirements not met). For each credit hour in a course, students receive the following quality points:

A	4.00	C	2.00
A–	3.67	C–	1.67
B+	3.33	D+	1.33
B	3.00	D	1.00
B–	2.67	D–	.67
C+	2.33	F	.00

F carries no credit or quality points, but grades of F are used in calculating the grade point averages. The cumulative grade point average is calculated by dividing the quality points by the credit hours completed.

Candidates for a degree must obtain a cumulative grade point average of 2.00 and a major grade point average of 2.00. Additional majors and any minors also require a 2.00 grade point average.

A student may not take a course that has a prerequisite course he or she has failed.

In addition to the above grades, the symbols I, IP, and W are used. I indicates that the work is incomplete (certain required work postponed by the student for substantial reason with the prior consent of the instructor) but otherwise satisfactory. This work must be completed within the first four weeks of the end of the course or the I will be converted to an F. Instructors may set an earlier deadline. Appeals for an extension of the incomplete grade past the four-week period must be approved by the instructor and presented to the registrar prior to the incomplete due date. IP (in progress) is a temporary grade for certain courses that have not concluded by the end of the semester. W indicates withdrawal from a course through the tenth week of semester classes (or up to the first two-thirds of course meeting during the summer or for an abbreviated period during fall and spring semesters), except for first-semester freshmen who may withdraw through the last day of the semester.

Once a grade has been recorded it may not be changed without the approval of the instructor and the registrar. Students who feel the grade may be inaccurate should contact the instructor at once, but in no case later than the end of the semester following the course in question.

## **Academic and Graduation Honors**

### *The Dean's List*

Students achieving a 3.40 or higher grade point average while carrying at least 12 credit hours for grade shall be named to the Dean's List at the end of each semester.

## *Graduation Honors*

After completing a minimum of 60 calculated credit hours of residence work, a student may qualify for graduation honors. The honors to be conferred are summa cum laude for grade point averages of 3.75–4.0, magna cum laude for grade point averages of 3.60–3.74, and cum laude for grade point averages of 3.40–3.59.

## *Departmental Honors*

All major programs provide the opportunity for departmental honors work during the junior and senior years. For specific information, interested students should contact the appropriate department chairperson. The minimal requirements for departmental honors are a cumulative GPA of at least 3.0, both at the time of application and at the time of graduation; a written thesis; an oral presentation; and approval by a majority vote of the full-time members of the department. This project is undertaken on a subject of the student's own choosing under the supervision of a faculty advisor. Opportunity also exists to do creative work. A maximum of 9 hours credit may be earned in departmental honors.

## *Phi Alpha Epsilon*

Phi Alpha Epsilon (the Greek initial letters of the words, “lover of learning and finder of truth”) was established in 1935 and recognizes academic achievement and service to others. To be eligible for his award, students must achieve a cumulative grade-point average of at least 3.60, complete at least 24 credits of general education coursework at LVC, and achieve the “bronze” level of service hours (as determined by the Office of Spiritual Life) at the conclusion of the fall semester prior to graduation. Ordinarily, seniors are formally welcomed into the society at a spring banquet.

## **Academic Honesty**

Lebanon Valley College expects its students to uphold the principles of academic honesty. Violations of these principles will not be tolerated. Students shall neither hinder nor unfairly assist the efforts of other students to complete their work. All individual work that a student produces and submits as a course assignment must be the student's own.

Cheating and plagiarism are acts of academic dishonesty. Cheating is an act that deceives or defrauds. It includes, but is not limited to, looking at another's exam or quiz, using unauthorized materials during an exam or quiz, colluding on assignments without the permission or knowledge of the instructor, and furnishing false information for the purpose of receiving special consideration, such as postponement of an exam, essay, quiz, or deadline of an oral presentation.

Plagiarism is the act of submitting as one's own the work (the words, ideas, images, or compositions) of another person or persons without accurate attribution. Plagiarism can manifest itself in various ways: it can arise from sloppy, inaccurate note-taking; it can emerge as the incomplete or incompetent citation of resources; it can take the form of the wholesale submission of another person's work as one's own, whether from an online, oral or printed source. The seriousness of an instance

of plagiarism—its moral character as an act of academic dishonesty—normally depends upon the extent to which a student intends to deceive and mislead the reader as to the authorship of the work in question. Initially, the instructor will make this determination.

In the unfortunate event of an alleged breach of academic honesty, a student will be assured due process as follows:

- No later than three weeks after the instructor's observation of academic dishonesty, the instructor will present to the student (orally or in writing) the specific charge with all supporting documentation. Documentation should include the nature of alleged academic dishonesty, a description of the incident, and the evidence supporting the charge. At the moment the work has been submitted, the student involved forfeits the right to withdraw from the course or to change his or her course status in any way.
- Following this notification, the instructor will meet with the student and permit the student to respond to the charge with factual information and mitigating circumstances related to the charge.
- Once the instructor and student have met, if the instructor concludes that the student is culpable of academic dishonesty, the instructor shall report the suspected incident to the associate dean of academic affairs.
- Information related to the offenses of academic dishonesty must be passed by the faculty member to the associate dean who shall retain the information for as long as the student involved is enrolled at the College. Information and evidence concerning academic dishonesty are the property of the College.
- The associate dean and the student charged with academic dishonesty will meet in a closed session to review the charges and the supporting evidence. Following this meeting, the associate dean shall send the student a formal correspondence describing the consequences of this offense and any further offenses.
  - For the first offense of academic dishonesty, the instructor has the option of implementing whatever grade-related penalty he or she deems appropriate, up to and including failure in the course.
  - For the second formally established offense of academic dishonesty, failure in the course is warranted; the associate dean shall so notify the faculty member(s) involved. Additionally, the associate dean has the authority to take further action against the student, up to and including suspension or expulsion from the College.
  - For the third formally established offense of academic dishonesty, failure in the course and removal from the College are warranted. Removal may take the form either of suspension for one or two semesters or permanent expulsion.
- The associate dean has the authority to determine whether actions by a student constitute "offenses of academic dishonesty" as described previously.

- The student may appeal the determination of academic dishonesty within ten (10) business days following the date of the decision sent to the student from the associate dean. Failure by the student to appeal within the limited time period constitutes a waiver of the student's right to appeal.
- The appeal must be made in writing and forwarded to the vice president for academic affairs/dean of the faculty. An appeal will be awarded given either of the following conditions:
  - The College's policies and procedures were not followed by the instructor;
  - Significant and new evidence supporting the student's defense was discovered after the hearing.
- The VPAA/dean of the faculty will assemble an Appeals Committee, consisting of two members of the teaching faculty and one member of the student body. The VPAA/dean of the faculty will appoint one of the two faculty members to serve as chair of the Appeals Committee. The Appeals Committee has the authority to: (a) affirm or reverse the findings and actions of the instructor and the associate dean, and; (b) reduce or moderate the associate dean's decision on suspension or expulsion. The Appeals Committee does not have the authority to change a grade decision. Findings will be communicated in writing to the student, the instructor, the associate dean and the VPAA/dean of the faculty.
- The chair of the Appeals Committee will consult with both the student and the instructor to schedule an appeals hearing. Both the student and the instructor will be given at least two days' notice of the date, time and place of the hearing. Both the student and the instructor must be present at the hearing. The student may be assisted during the appeals hearing by an advisor of choice from among the current full-time students, faculty, administration or staff, but may not be assisted during the appeals hearing by anyone else. The selected individual may function in an advisory capacity only. He or she may not actively participate in the appeals hearing.
- The student will be informed in writing of the committee's decision within twenty-four hours following the appeals hearing.

### **Academic Probation and Suspension**

At the conclusion of each semester, the Dean's Academic Advisory Council meets to review the academic performance of all undergraduate students. The members of the council are the vice president for academic affairs and dean of the faculty, the vice president for student affairs, the dean of student affairs, the associate dean for academic affairs, the assistant dean for academic advising and student success, and the registrar.

To maintain themselves in good academic standing at the College, students must achieve minimum cumulative grade point averages appropriate to progress toward their degree, and they must complete coursework at a regular and sustained pace.

Minimum cumulative GPAs are as follows:

Semester Hours Completed	Required Cumulative GPA
1–27	1.60
28–55	1.70
56–83	1.80
84 or more	1.90

At the conclusion of each semester, the College examines students' academic records. Students who have not achieved the above minimum grade point averages will be given an **Academic Warning**, placed on **Probation**, or **Academically Suspended** from the College.

**Academic Warning.** The first time students fall below the required cumulative GPA as listed above, they will be given Academic Warning. Academic Warning constitutes a formal notification that a student's academic performance is weak and that he or she needs to devote increased attention to academic work. Students receiving Academic Warning are cautioned that unless they achieve an acceptable cumulative grade point average, they will be placed on Probation and thereby lose the privilege of participating in extracurricular activities (including such activities as intercollegiate sports, student government, campus media, student clubs, and Greek and service organizations).

**Probation.** Students who fall a second time below the required cumulative GPA (whether in consecutive or nonconsecutive semesters) will be placed on Probation. A student on Probation will not be permitted to take part in extracurricular activities.

**Final Probation.** Students who fall a third time below the required cumulative GPA (whether in consecutive or nonconsecutive semesters) will be placed on Final Probation. A student on Final Probation will not be permitted to take part in extracurricular activities, and the student will be informed that unless the student restores himself or herself to good academic standing and maintains that status, the student will be suspended from the College.

**Academic Suspension.** Students will be suspended academically from the College when (1) they fall a fourth time below the required cumulative GPA (whether in consecutive or nonconsecutive semesters); (2) they fail to achieve a cumulative GPA of at least 0.75 at the conclusion of any semester; (3) they have not earned by the conclusion of the second and subsequent semesters of full-time enrollment a total of at least 6 credit hours of coursework for each semester completed. Students suspended will not be permitted to return for at least the full subsequent semester (fall or spring). To request reinstatement, students must submit a written petition to the associate dean for academic affairs. A suspended student who returns to the College and who is suspended again for academic reasons will be regarded as permanently separated from the College.

Upon reinstatement to the College, a student will have two semesters to bring up his or her cumulative GPA to the minimum required for good academic standing at the College.

# UNDERGRADUATE ACADEMIC PROGRAMS

## General Education Program

Through the General Education Program, the College most directly expresses its commitment to the ideal of liberal education that underlies its mission statement. This program seeks to prepare graduates who are intellectually engaged, skilled in communication, capable of analysis and interpretation, and open to change and difference. It seeks to establish in its graduates a foundation for their continuing education, including their intellectual, aesthetic, and moral growth, their vocational development, and their understanding of issues involving social responsibility at the local, national, and global levels.

Our General Education Program aims to educate students so that they:

1. Deepen their knowledge—in terms of both content and method—across a broad range of disciplines in the liberal arts, including history, the social sciences, the natural sciences, mathematics, literature, the fine arts, religion and philosophy.
2. Enhance their intellectual and practical skills, including critical inquiry and analysis, effective written and oral communication, quantitative reasoning, information literacy, and the ability to draw upon and integrate both content and method from different academic disciplines when considering particular problems or issues.
3. Develop ethical reasoning, and an understanding of cultural diversity and personal and social responsibility, in order to prepare them for local, national, and global citizenship.

The program consists of coursework in the following four areas:

### **Communications.** 15 credit hours.

English Communications (2 courses)

Writing Requirement (3 courses)

This component recognizes the central role communication plays in learning and in life. Courses teach the principles of clear and effective communication and provide opportunities to practice and refine them throughout a student's college career.

*English Communications* [EC]. Courses provide instruction in the elements of English composition and provide a wide range of opportunities for students to practice and sharpen their writing abilities. Courses also teach the related skills of speaking, reading, and critical thinking. ENG 112 provides a foundation in the skills essential to information literacy, i.e., the ability to find, evaluate, and make effective use of source material relevant to a research topic.

Requirement: ENG 111 or FYS 100; ENG 112.

First-year students must fulfill the communications component of the General Education Program by enrolling in either First-Year Seminar (FYS 100) or English Communications I (ENG 111). The primary goal of each course is to help first-year students become college-level writers. Students will be assigned the same



amount of writing in both FYS 100 and ENG 111. An important difference between the two courses is that each FYS class is organized around a particular topic, and students will write in response to various aspects of that topic, whereas ENG 111 is not organized around a particular topic, so its students can expect to write essays about a variety of different topics. Students in FYS should expect to do more reading than students in ENG 111.

*Writing Requirement [WP].* In addition to English Communications, students must complete three courses designated **Writing Process**, preferably one each during the sophomore, junior and senior years. Along with course content, faculty will also teach writing in these courses and will make evaluation of writing quality an important factor in the course grade.

Requirement: Three courses from an approved list.

Approved: AMS 223, 229; ART 214, 312, 316, 320, 328, 351; BIO 304, 307, 312, 322, 324; BUS 285, 485; CHM 230, 321, 322; DCOM 285; DSP 335, 340; ECE 335, 340; ECN 321, 332, 410; EDU 311, 450; ELM 371; ENG 213, 315, 334, 341, 342, 351, 352, 451; FRN 410, 420, 430, 440, 450; GMN 410, 460; HIS 205, 206, 207, 215, 217, 226, 250, 310, 312, 315, 499; INT 499; MBS 371; MED 334; MSC 201; PHL 210, 229, 230, 270, 301, 311, 345, 349, 417, 499; PHY 328; PSC 207, 211, 215, 250, 312, 313, 316, 330, 345, 417, 498; PSY 211, 245, 443; REL 230, 280, 311, 313, 499; SOC 311, 324, 331, 499; SPA 310, 410, 420, 430, 440, 450, 460; SPE 250.

### **Liberal Studies.** 24–26 credit hours.

Courses in this component introduce fundamental concepts, methods and content in disciplines essential to a liberal education.

Requirement: Eight courses, with at least one course in each of the six areas, and two additional courses in any of the six areas; however, no more than two courses from any one area may be used to satisfy the Liberal Studies requirement.

*Area 1: History [L1].* Courses acquaint students with some of the principal developments in world or American history. Students analyze problems or controversies, and learn to use different kinds of source material.

Approved: AMS 111, 220, 223, 225, 340; HIS 103, 104, 105, 125, 126, 207, 210, 217, 226, 240; PSC 207; REL 340.

*Area 2: Social Science [L2].* Courses establish and explore patterns of human culture and social organization including international aspects of the world by examining the relationships among individuals and the structures and processes of societies. They draw on the theories and methodological approaches used in the social sciences and prepare students to evaluate, integrate, and communicate information and issues related to human behavior.

Approved: ECN 101, 102, 105; HIS 215; PSC 100, 110, 215, 245, 250, 330; SOC 110, 120, 210, 230, 261.

*Area 3: Natural Science [L3].* Courses present findings, concepts, and theories of science, develop an understanding of scientific methods of inquiry, engage students

directly in the practice of science, and prepare students to think critically about scientific issues.

Approved: BIO 101, 102, 103, 111/113, 112/114; CHM 111/113 or 111/115, 112/114 or 112/116; PHY 100, 101, 102, 103/105, 104/106, 111, 112, 120; PSY 111; SCI 100.

*Area 4: Mathematics* [L4]. Courses introduce pivotal mathematical ideas, abstract mathematical constructs, and mathematical applications. They make students aware of the powers and limitations of mathematics and emphasize the role of mathematics in our society.

Approved: MAS 100, 111, 112, 150, 161, 162, 170, 270.

*Area 5: Literature and Fine Art* [L5]. Courses acquaint students with significant works of artistic expression and with their historical and cultural contexts. They help them analyze and broaden their understanding of works of art, music and literature and seek both to extend their aesthetic experience and enhance the quality of their critical judgment.

Approved: ART 112, 114, 214, 312, 320, 328, 330, 332; DCOM 495; ENG 120, 180, 221, 222, 225, 226, 227, 228, 375; FRN 410, 420, 430, 440, 450; GMN 410, 460; MSC 100, 101, 201, 242, 343; SPA 410, 420, 430, 440, 450

*Area 6: Religion and Philosophy* [L6]. Courses introduce major religious or philosophical perspectives, the critical study of value judgments, and the understanding that all judgments and value systems are grounded in particular worldviews. Students are encouraged to examine their own moral commitments as they develop an awareness of and tolerance for other value systems.

Approved: PHL 110, 210, 222, 230; REL 110, 202, 230, 250, 251.

### **Cross-Cultural Studies.** 12 credit hours.

Two courses in a foreign language.

One course in Foreign Studies.

One course in Social Diversity Studies.

This component responds to a contemporary world in which communication, travel and trade increasingly juxtapose cultures, values and ideas. Courses help students understand, interpret, and appreciate cultural, social, moral, economic and political systems different from their own.

*Foreign Language* [FL]. By learning another language, students see the world from a different linguistic and cultural perspective. These courses help students understand that all languages solve similar problems of expressing thought, but that each language provides special access to a particular human society.

Requirement: Two courses.

Options: 1. Continue a previously studied language (two or more years) at the intermediate level. FRN, GMN, SPA 201/202.

2. Begin a new language. FRN, GMN, ITA, SKT, SPA 101/102.

3. Repeat the elementary level (fewer than two years in high school, or no language study for six full years). FRN, GMN, SPA 101/102.
4. Complete one advanced course (requires permission from the Languages Department).

International students who are fluent in a native language other than English are exempt from this requirement.

*Foreign Studies* [FS]. Courses increase students' global awareness by introducing them to important aspects of societies in Asia, Africa, the Middle East and the Americas to foster an understanding of cultural, social, political, religious, or economic systems outside the European tradition.

This requirement may be met through one of the following options:

1. Choose one course from the approved list below.
2. Complete the Foreign Language requirement at the intermediate level (201/202) or higher. Note: Entering students who score a 4 or 5 on the AP foreign language exam in Spanish, French, or German must complete either one 300-level Foreign Language course or one Foreign Studies course. Students who score a 4 or 5 on the AP literature exam in Spanish, French, or German must complete one Foreign Studies course.
3. Participate in a semester-long study-abroad program or complete approved course work that involves substantial on-site immersion in a foreign culture.

Approved: ART 116; GMN 305; HIS 274, 275, 303, 304, 305; INT 100; MSC 202; PSC 211, 212, 213; REL 140, 200, 204, 252, 253, 255; SPA 360, 460.

*Social Diversity Studies* [SDS]. Courses focus on the social diversity in the United States and allow students to engage critically the issues—such as race, gender, class, sexual orientation, religion—that historically have divided and defined Americans. Students who participate in semester-long programs in Philadelphia or Washington, D.C., sponsored by the Study Abroad Office will be considered to have fulfilled the Social Diversity Studies requirement.

Approved: AMS 229, 280, 362; EDU 240, 245; ENG 420, 421; HIS 220, 241, 330; PHL 229; PSC 316; PSY 247; REL 120; SDS 330; SOC 224, 226, 240, 262.

*Courses in Social Diversity Studies:*

**SDS 330. Diversity in the Workforce.** 3 credits.

**Disciplinary Perspectives** [DSP]. Three credit hours.

One course from a list approved for this component.

This component offers students an opportunity to bring insights from different disciplines to the analysis of a complex issue. Courses incorporate content and approaches from at least two disciplines, ask students to draw on their own disciplinary perspectives, and challenge them to approach and analyze issues from various points of view. Junior or senior standing is required.

Requirement: One course from an approved list.

Approved: AMS 311, 328; ART 351; DCOM 386; DSP 310, 320, 322, 324, 328, 335, 340, 342, 348, 350, 352, 354, 356, 370, 390; HIS 301; PHL 345, 349; PHT 412; PSC 345, 380; REL 313, 314.

### *Multidisciplinary Courses:*

The faculty has approved the following multidisciplinary courses. All satisfy the General Education Program requirement for a disciplinary perspectives course. Junior or senior standing is required.

**DSP 310. AIDS.** 3 credits.

**DSP 320. The College Colloquium.** 3 credits.

**DSP 322. The 20th-Century World.** 3 credits.

**DSP 324. The American Presidency: Power and Character.** 3 credits.

**DSP 328. Film and the American Identity.** 4 credits.

**DSP 335. Religion and Literature.** 3 credits.

**DSP 340. Myths and Their Meaning.** 3 credits.

**DSP 342. Plants and People.** 3 credits.

**DSP 348. The Atomic Bomb: History, Science, and Culture.** 3 credits.

**DSP 350. Drugs and Behavior.** 3 credits.

**DSP 352. Marx and Marxism.** 3 credits.

**DSP 356. Liberty and Justice.** 3 credits.

**DSP 354. Issues in Contemporary Europe.** 3 credits.

**DSP 370. Paranormal and Pseudoscientific Phenomena: A Critical Examination.** 3 credits.

**DSP 390. Special Topics.** 3 credits.

A student may petition the director of general education to substitute another course in the curriculum for an approved course in any component of the program.

For full descriptions of courses in the general education program, please visit [www.lvc.edu/general-education](http://www.lvc.edu/general-education).

## **Cooperative Programs**

### *Engineering*

In the cooperative 3+2 Engineering Program, a student earns a B.S. degree from Lebanon Valley College and a B.S. degree in one of the fields of engineering from another institution. Students do three years of work at Lebanon Valley College and then usually do two additional years of work in engineering. Students may study engineering at any accredited engineering school. To assist the student, Lebanon Valley College has cooperative (contractual) agreements with The Pennsylvania State University and Case Western Reserve University in Cleveland. There are three tracks for 3+2 engineering. For most fields of engineering, the student completes the B.S. physics track. For chemical engineering, the student completes the B.S. chemistry track. For computer engineering, the student completes the B.S. computer science track. For more information, contact Professor Michael Day (di-

rector, 3+2 Engineering Program).

### *Medical Technology (Clinical Laboratory Science)*

The student spends three years at Lebanon Valley College taking courses to fulfill the requirements of the College and of the National Accrediting Agency for Clinical Laboratory Sciences. Before or during the third year of the program, the student applies to a hospital with a CAHEA approved school of medical technology where he or she spends the fourth year in training. Admission is not automatic and depends upon the academic record, recommendations and an interview. Upon satisfactorily completing the clinical year, the student is awarded the Bachelor of Science in Medical Technology by Lebanon Valley College. The College is affiliated with the following (hospital) programs: School of Medical Laboratory Science of the Jersey Shore University Medical Center and the Clinical Laboratory Science Program of the Lancaster General College of Nursing and Health Sciences. However, the student is not limited to these affiliations and may seek acceptance at other approved hospitals.

### *Degree Requirements:*

*Degree:* Bachelor of Science in Medical Technology

*Major:* BIO 111, 112, 113, 114, 201, 306, 322 or 324, 323; CHM 111, 112, 113, 114, 213, 214, 215, 216; PHY 103/105, 104/106; MAS 170 (51 credits). The senior year is spent off campus at an accredited hospital school of medical technology. It is the student's responsibility to apply and become accepted into a hospital program. Thirty semester hours of credit are awarded for the successful completion of this year.

## **Pre-Professional Programs**

### *Pre-Law Program*

Lebanon Valley students have done very well at a variety of law schools. Over the years, LVC students who have excelled academically have attended Harvard, Chicago, Columbia, Stanford, Washington and Lee, and William and Mary. Our graduates have also studied at several of Pennsylvania's fine schools of law, including Penn State Dickinson, Temple, Villanova, Duquesne, Drexel, and Widener. Lebanon Valley alumni have pursued legal careers with corporations, government, while a number have entered politics.

Students should consult with the pre-law advisor well before commencing the law school application process. The pre-law advisor, Dr. Philip Benesch, will help you decide when to take the Law School Admission Test (LSAT) and which law schools may suit your interests and qualifications. The LSAT is required for acceptance at American Bar Association-approved law schools. The LSAT is given four times during the year, typically in February, June, September, and December. For many, it will be beneficial to take an LSAT preparation course. LVC has teamed with Kaplan to offer practice LSATS in early September and in February. A follow-up workshop will be held approximately two weeks after each practice test. In addition, we strongly recommend that before taking the LSAT, students complete

PHL 120 Basic Logic, a course required for the Law and Society minor.

In addition to an applicant's LSAT score, law schools will consider his or her GPA, transcript, letters of recommendation, and personal statement. No single major is identified as an ideal preparation for law school; rather a broad liberal-arts curriculum is preferred, with courses known for significant reading, writing, and thinking challenges being particularly valued.

A **law and society minor** can be taken alongside any major at LVC. Further information on the Law and Society minor can be found in the History and Political Science section of the *College Catalog*. The minor includes courses on Law and Government, Civil Liberties and Civil Rights, and a senior-level Seminar in Law.

In addition, it is **recommended** that pre-law students take the following courses to fulfill general education requirements or free electives: under Area 1, HIS 125, United States History to 1865, and HIS 126, United States History since 1865; under Area 2, ECN 101, Principles of Microeconomics, ECN 102, Principles of Macroeconomics, and PSC 110, American National Government; under Area 6, PHL 210, Ethics. Other elective courses of potential interest to pre-law students include BUS 371/372, Business Law, and ACT 161/162, Financial and Managerial Accounting.

Students interested in law school should contact the pre-law advisor as early as possible in their studies at Lebanon Valley. Dr. Philip Benesch, the pre-law advisor and director of the Law and Society Program, can be reached by phone at 717-867-6326, at his office HUM 306C, or by email at benesch@lvc.edu.

### *Pre-Medical, Pre-Dentistry, Pre-Veterinary*

Lebanon Valley College offers pre-professional preparation in the medical (medicine, osteopathy, optometry, podiatry, pharmacy, chiropractic, dentistry, and physician assistant) and veterinary fields. Students interested in one of these careers usually follow a science curriculum with a major in biochemistry and molecular biology, biology, chemistry or psychobiology.

In addition to the basic natural sciences suited to advanced professional study, the student may participate in an internship program between the College and local physicians or veterinarians. Students not only receive credit for the work, but also gain valuable experience in the field.

A health professions committee coordinates the various plans of study in addition to offering advice and assistance to those persons interested in health professions careers.

Lebanon Valley College graduates have been admitted to some of the nation's finest schools, including Johns Hopkins University Medical School, University of Virginia, Cornell University, The University of Pennsylvania, The University of Pittsburgh, Jefferson Medical School, Lake Erie College of Osteopathic Medicine, The Pennsylvania State University Medical School at Hershey, Temple University School of Pediatric Medicine, The University of Maryland, The Philadelphia College of Osteopathic Medicine, The Pennsylvania College of Pediatric Medicine, and the Pennsylvania College of Optometry.

## Individualized Major

The option of an individualized major is available to students who desire a field of concentration that is not substantially addressed by any one department. The faculty represents a diverse set of interests and perspectives that provide a considerable resource for those students who would like to develop a major around concerns that do not fall into traditional disciplinary areas. As a liberal arts institution, the College and its faculty are willing to help a student develop a program of study using interdisciplinary courses.

A student planning an individualized major should prepare an application that includes courses relevant to the topic and secure the written endorsement of at least two faculty advisers for the proposed major, which shall consist of at least 24 credits above the 100 level.

The student should submit the application to the vice president for academic affairs and dean of the faculty for final approval. The student will work closely with the advisers. Any changes in the program must be submitted to the dean for approval.

*Degree:* Bachelor of Arts or Bachelor of Science degree (depending upon concentration) with an individualized major.

*Requirements:* Those courses specified within the approved individualized major plus those courses to meet the general requirements of the College.

## Internships

An internship is a practical and professional work experience that allows students to participate in the operations of business, industry, education, government or not-for-profit organizations. Internships provide students with opportunities to integrate their classroom learning with on-the-job experiences and to test practical applications of their liberal arts education in a variety of settings.

To be eligible for an internship sponsored by an academic department or program, a student generally will have junior or senior standing. Students must request and receive permission from departmental chairpersons or program directors to enroll in internships. The student must also enlist a faculty internship supervisor from the department sponsoring the internship and an on-site internship supervisor from the internship location. Application forms for internships are available in the office of the registrar. The application form shall be completed by the student and approved by the student's academic advisor, faculty internship supervisor, on-site internship supervisor, and the department chairperson prior to registration.

For each semester hour of credit, the intern should invest at least 45 hours of time at the internship location. Academic departments and programs establish other specific criteria and procedures for internships. In addition to the practical on-site experience, internships have an academic component that may include readings, reports, journals, seminars and/or faculty conferences. A student may enroll for 1–12 credit hours of internship during any one semester. A student may use a maximum of 12 credit hours of internship to meet graduation requirements. All internships have a course number of 400.



## **Independent Study**

Independent study provides an opportunity to undertake a program of supervised reading, research or creative work not incorporated in existing formal courses. The independent study should result in a formal document. Independent study shall not be used to approximate an existing course or to cover projects more properly described as internships. Junior or senior standing and a minimum GPA of 2.00 or higher are required.

For one semester hour of credit, the independent study student should invest at least 45 clock hours of time in reading, research or report writing. The independent study involves a contract between the student and the faculty member (contract instructor) who will oversee the study. Written application forms regarding the independent study are available in the office of the registrar. The forms must be completed by the student and approved by the student's faculty advisor, the contract instructor, and the department chairperson.

Students may enroll in a maximum of 3 credit hours per independent study in any one semester. A maximum of 6 credit hours in independent study may be used toward the graduation requirements. All independent studies have a course number of 500.

## **Tutorial Study**

Tutorial study provides students with a special opportunity to take an existing formal course in the curricula that is not scheduled that semester or summer session. Students desiring a tutorial study must have an appropriate member of the faculty agree to supervise the study on a one-on-one basis.

For one semester hour of credit, the student should invest at least 45 clock hours of time in the tutorial study. The tutorial study essentially involves a contract between the student and the faculty advisor. The typical tutorial study involves readings, research, report writing, faculty conferences, and examinations. All tutorial study courses have the same course number as the existing formal catalog course.

## **Special Topics Courses**

From time to time, departments may offer Special Topics courses using the following course numbers: 290–298, 390–398, 490–498, and 590. Special Topics courses are formal courses that are not listed permanently in the curricula and that are offered infrequently. These courses examine comparatively narrow subjects that may be topical or of special interest. Several different topics may be taught in one semester or academic year. A specific course title shall be used in each instance and shall be so noted on the student record.



## **Study Abroad**

Lebanon Valley College has established its own study abroad programs for students majoring in all subjects. All programs ensure a cultural immersion experience for students, with several programs, open to language majors and non-language majors, also offering a language-enhancement opportunity. These programs are located in Argentina, Australia, England, France, Germany, Greece, Italy, Netherlands, New Zealand, Northern Ireland, Spain and Sweden. Lebanon Valley College also offers off-campus academic internship programs in Philadelphia and Washington, D.C. Students in any major field can gain work experience in a large U.S. city while earning academic credits for the semester. Further information on all off-campus programs may be obtained at the Study Abroad Office, HUM 201, ext. 6076. See In-Absentia on page 15.

# UNDERGRADUATE DEPARTMENTS AND PROGRAMS

## AMERICAN STUDIES PROGRAM

The American studies program is designed to heighten critical awareness and appreciation of what is distinctive about American culture. As a self-consciously interdisciplinary program, American studies is the primary site at LVC for courses dealing in women's studies, ethnic studies, cultural studies, and media studies. Its curriculum regularly touches on issues of class, gender, ethnicity, and multiculturalism. As a result, many of the general education program's required courses in social diversity studies are listed through the American studies program. The program also has courses that critically explore the interrelationship of religion and politics in the United States, the impacts of consumerism on the American economy and culture, the distinction between "popculture" and "high culture," and the importance of the counter-cultural movement in American art, literature, and film.

The American studies program draws on faculty from various disciplines and departments from throughout the College, such as religion and philosophy, history and political science, anthropology, psychology, art, English and music. Each class is committed to engendering a culture of participation in which student input and engagement are absolutely essential to the success of the course. Also, the program is known for creating many of the most innovative and experimental courses on campus, such as the team-taught courses on violence and non-violence and on film and the American identity.

The program offers a minor wherein every class also meets general education requirements. A degree in American studies can lead to a career in teaching, publishing, law, journalism, government, consulting and research, historic preservation, museums, archiving, tourism, or a number of other professions. Many of our graduates also go on to graduate school to earn a master's degree or doctorate in American studies or a related discipline.

*Minor:* AMS 111; two AMS courses at the 200 level; two AMS courses at the 300 level; one additional AMS course or any of the following courses that directly pertain to the study of American society and culture: HIS 230, 242, 330; MSC 201; PHL 222; PSC 110, 230, 261, 312, 316, 330; PSY 247; REL 120; SOC 262 (18 credits).

*Courses in American Studies:*

**AMS 111. Introduction to American Studies.** 3 credits. [L1]

**AMS 220. American Popular Culture: Production and Consumption.**  
3 credits. [L1]

**AMS 223. American Thought and Culture.** 3 credits. [L1, WP]

**AMS 225. Democracy in America.** 3 credits. [L1]

**AMS 229. Culture and Conflict in Modern America.** 3 credits. [SDS, WP]

**AMS 280. Gender and Sexual Minorities in America Culture.** 3 credits.  
[SDS]

**AMS 311. American Science and Technology.** 3 credits. [DSP]

**AMS 328. Film and the American Identity.** 4 credits. [DSP]

**AMS 340. One Nation Under God?** 3 credits. [L1]

**AMS 362. Multiculturalism and the American Identity.** 3 credits. [SDS]

For additional information about this program, including faculty and full course descriptions, please visit [www.lvc.edu/american-studies](http://www.lvc.edu/american-studies).

## DEPARTMENT OF ART AND ART HISTORY

In the Art and Art History Department we invite our students to explore the creative process and to engage in the study of significant works of art and architecture. The focus of the program is on the development of essential skills: visual literacy, the ability to articulate oral and written arguments, and professional preparedness. We achieve this goal through innovative teaching and a rigorous curriculum in which students develop under the guidance of accomplished faculty mentors. With this foundation our graduates are equipped to begin careers as artists, designers, museum workers, and teachers, and are able to successfully complete post-graduate degree programs at institutions nationwide.

The Art and Art History Department offers a major in art and art history, with concentrations in art history, art education, and studio art. The department also offers minor programs in art history and studio art.

Situated in the newly redesigned Lynch Memorial Hall, the Art and Art History Department contains classrooms and studios with digital projection systems; dedicated painting, sculpture, and design studios; private studio spaces for advanced students; a large photographic darkroom; galleries for exhibiting student work; and an art history research gallery housing works from the College collection. The nearby Gladys M. Fencil Art Building contains dedicated studios for drawing, print-making, and ceramics, including potter's wheels, kilns, and raku equipment. An additional component of the program is the Suzanne H. Arnold Art Gallery, which hosts museum-quality exhibitions of work by innovative contemporary artists and historical masters while presenting numerous lectures and workshops throughout the year.

### Art and Art History Program

*Degree Requirements:*

*Degree:* Bachelor of Arts with a major in art and art history; certification in art education.

*Major:* Core requirements: ART 103, 112, 114, 116.

*Art history concentration:* ART 404, 406, and seven additional art courses, at least six of which must be in art history (ART 214, 312, 316, 320, 328, 330, 332, 340, 351, 390 [Art History], 400).

*Studio art concentration:* ART 205 or 217; ART 209, 405, 406; four courses from ART 211, 217, 219, 221, 223, 225, 231, 400; one course from ART 305, 309, 311, 315, 319, 323, 390 (Studio Art).

*Art education concentration:* ART 205 or 217; ART 209, 219, 223, 405, 406; ART 225 or 231; one course from ART 311, 315, 319, 323; one course from ART 214, 312, 316, 320, 328, 330. Certification candidates must also complete 33 credits in additional required coursework. See the Education Department section on page 52 for additional information.

*Art history minor:* ART 112, 114, 116; two art history courses, one of which must be at the 300- or 400-level; one art history or studio art course (18 credits).

*Studio art minor:* ART 103, 209; ART 205 or 217; two studio art courses, one of which must be at the 300- or 400-level; one studio art or art history course (18 credits).

#### *Courses in Art and Art History:*

**ART 103. Visual Thinking.** 3 credits.

**ART 112. Western Art I: Prehistoric to Medieval.** 3 credits. [L5]

**ART 114. Western Art II: Renaissance to Modern.** 3 credits. [L5]

**ART 116. Non-Western Art: Africa to Oceania.** 3 credits. [FS]

**ART 205. Drawing I: Material and Form.** 3 credits.

**ART 209. Sculpture I: Material and Form.** 3 credits.

**ART 211. Darkroom Photography.** 3 credits.

**ART 214. History of Photography.** 3 credits. [L5, WP]

**ART 217. Drawing II: The Human Form.** 3 credits.

**ART 219. Painting I: Color and Form.** 3 credits.

**ART 221. Painting II: Water-Based Media.** 3 credits.

**ART 223. Ceramics I: Material and Form.** 3 credits.

**ART 225. Printmaking.** 3 credits.

**ART 231. Digital Photography.** 3 credits.

**ART 305. Drawing III: Illustration.** 3 credits.

**ART 309. Pastel.** 3 credits.

**ART 311. Photography II: Concept and Technique.** 3 credits.

**ART 312. Renaissance Art.** 3 credits. [L5, WP]

**ART 315. Sculpture II: Material and Concept.** 3 credits.

**ART 316. Baroque Art.** 3 credits. [WP]

**ART 319. Painting III: Concept and Technique.** 3 credits.

**ART 320. Art and Revolution: 1776 to 1863.** 3 credits. [L5, WP]

**ART 323. Ceramics II: Material and Concept.** 3 credits.

**ART 328. Modern Art.** 3 credits. [L5, WP]

**ART 330. Contemporary Art: 1980 to Present.** 3 credits. [L5]

**ART 332. Art and the Moving Image.** 3 credits. [L5]

**ART 340. Museum Studies.** 3 credits.

**ART 351. Color and Culture.** 3 credits. [DSP, WP]

**ART 404. Art History: Theory and Method.** 3 credits.

**ART 405. Advanced Studio.** 3 credits.

**ART 406. Portfolio & Professional Development.** 3 credits.

For additional information about this program, including faculty and full course descriptions, please visit [www.lvc.edu/art](http://www.lvc.edu/art).

## DEPARTMENT OF BIOLOGY

### Biology Program

The Biology Department attempts to share with all LVC students the role of living organisms within the universe. We encourage the students to understand how these organisms interact with each other and their environments and are the result of the complex interplay of ordinary chemicals, arranged according to the fundamental laws of physics and assembled in mathematically predictable ways.

The goal of the Biology Department is to produce graduates who are well versed in the principles and techniques of biology, have the intellectual training to investigate novel concepts, have the ability to learn independently, interpret and articulate clearly their findings, possess the highest scholarly standards of the discipline, and maintain honest academic conduct.

The Biology Department curriculum (1) employs the underlying principles of biology and requires a background in the supporting disciplines; (2) requires the application of the scientific method in the laboratory or field; (3) integrates informational retrieval, the synthesis of ideas into a coherent whole, and the communication of research findings; and (4) prepares students for advanced study in medical, dental and veterinary professional schools, graduate schools, and employment in technical fields.

#### *Degree Requirements:*

*Degree:* Bachelor of Science with a major in biology.

*Major:* BIO 111, 112, 113, 114, 201, 499; two courses from the area of Cellular/Molecular Biology—BIO 231, 304, BIO 306, BIO 323, BCMB 401; two courses from the area of Organismal Biology—BIO 221, BIO 302, BIO 305, a physiology course: BIO 307 or BIO 322 or BIO 324; one course from the area of Population Biology—BIO 212, BIO 312, BIO 402 (33 credits). CHM 111, 112, 113, 114, 213, 214, 215, 216 (16 credits); PHY 103/105, 104/106 or 111, 112; MAS 161 (111) or MAS 170 (60-61 credits total).

*Minor:* BIO 111, 112, 113, 114; plus four additional courses in biology at 200 or above except BIO 400 and 500. (24 total credits).

*Secondary Teacher Certification:* In addition to a major in biology, students seeking secondary certification in biology must take BIO 312. Certification candidates must also complete 33 credits in additional required coursework. See the Education Department section on page 52 for additional information.

### *Courses in Biology:*

**BIO 101. Human Biology.** 4 credits. [L3]  
**BIO 102. Human Heredity.** 4 credits. [L3]  
**BIO 103. Environmental Science.** 4 credits. [L3]  
**BIO 111. General Biology I.** 3 credits. [L3]  
**BIO 112. General Biology II.** 3 credits. [L3]  
**BIO 113. General Biology I Laboratory.** 1 credit. [L3]  
**BIO 114. General Biology II Laboratory.** 1 credit. [L3]  
**BIO 201. Genetics.** 4 credits.  
**BIO 212. Animal Behavior.** 4 credits.  
**BIO 221. Mammalian Anatomy.** 4 credits.  
**BIO 222. Human Physiology.** 4 credits.  
**BIO 231. Neurobiology.** 4 credits.  
**BIO 302. Plant Diversity.** 4 credits.  
**BIO 304. Developmental Biology.** 4 credits. [WP]  
**BIO 305. Cell and Tissue Biology.** 4 credits.  
**BIO 306. Microbiology.** 4 credits.  
**BIO 307. Plant Physiology.** 4 credits. [WP]  
**BIO 312. Ecology I.** 4 credits. [WP]  
**BIO 322. Vertebrate Physiology.** 4 credits. [WP]  
**BIO 323. Introduction to Immunology.** 4 credits.  
**BIO 324. Invertebrate Physiology.** 4 credits. [WP]  
**BIO 402. Evolution.** 4 credits.  
**BIO 404. Electron Microscopy.** 4 credits.  
**BIO 409. Ecology II.** 4 credits.  
**BIO 499. Seminar.** 1-2 credits.

For additional information about this program, including faculty and full course descriptions, please visit [www.lvc.edu/biology](http://www.lvc.edu/biology).

## **Biochemistry and Molecular Biology Program**

The Biology Department offers a biochemistry and molecular biology program in conjunction with the Chemistry Department, described on page 61. The major in biochemistry and molecular biology is an interdisciplinary program that provides an opportunity for interested students to engage in a comprehensive study of the chemical basis of biological processes. It is designed to prepare students for advanced study in medical, dental and other professional schools, for graduate programs in a variety of subjects including biochemistry, clinical chemistry, pharmacology, molecular biology, genetics, microbiology, and physiology and for research positions in industrial, academic and government laboratories.

### *Degree Requirements:*

*Degree:* Bachelor of Science with a major in biochemistry and molecular biology.

*Major:* BIO 111, 112, 113, 114, 201; CHM 111, 112, 115, 116, 213, 214, 215, 216; BCMB 401, 421, 422, 430, 499; MAS 161; PHY 103/105, 104/106 or 111, 112 (51 credits); nine credits from BIO 304, 305, 306, 307, 322, 323, 404 and CHM

305, 306, 307, 308, 311.

*Courses in Biochemistry and Molecular Biology:*

**BCMB 401. Molecular Biology.** 4 credits.

**BCMB 421. Biochemistry I.** 3 credits.

**BCMB 422. Biochemistry II.** 3 credits.

**BCMB 430. Biochemistry Laboratory.** 1 credit.

**BCMB 499. Biochemistry Seminar.** 1 credit.

For additional information about this program, including faculty and full course descriptions, please visit [www.lvc.edu/biochemistry](http://www.lvc.edu/biochemistry).

## **Psychobiology Program**

The major in psychobiology is offered jointly by the Departments of Biology and Psychology, described on pages 46 and 155. This interdisciplinary major emphasizes the physiological substrates and consequences of behavior. Consisting of a combination of psychology and biology course work, the program prepares students for graduate study in medicine, veterinary medicine, graduate programs in psychology, animal behavior, physiological psychology, psychopharmacology, behavior genetics and neuroscience, as well as research positions in industry, universities, hospitals and government laboratories.

*Degree Requirements:*

*Degree:* Bachelor of Science with a major in psychobiology.

*Major:* BIO 111, 112, 113, 114, 212, 322 or 324 (16 credits); PSY 111, 211, 212, 285 (14 credits); PBI or PSY 378, 379 (4 credits); BIO 499 or PBI 499; CHM 111, 112, 113, 114 (8 credits); MAS 161 or 170; plus 8 additional credits in the sciences in consultation with advisor. 54 total credits.

*Courses in Psychobiology:*

**PBI 378. Behavioral Neuroscience.** 3 credits.

**PBI 379. Behavioral Neuroscience Lab.** 1 credit.

**PBI 499. Psychobiology Seminar.** 1 credit.

For additional information about this program, including faculty and full course descriptions, please visit [www.lvc.edu/psychobiology](http://www.lvc.edu/psychobiology).

## **DEPARTMENT OF BUSINESS AND ECONOMICS**

Lebanon Valley College is a member of and is accredited by the Accreditation Council of Business Schools and Programs (ACBSP) to offer bachelor of science degrees in accounting, in business administration, and in health care management, as well as the bachelor of arts degree in economics. A major in music business is also offered jointly with the Music Department. Economics students study the choices we must make in a world of resources that have competing uses. Economics majors are typically preparing for graduate study or for a variety of entry-level

positions in business and government.

All programs are enhanced by the liberal arts core required of all Lebanon Valley College students. This interdisciplinary knowledge base helps graduates prepare for their professional careers, graduate school, and for assuming leadership positions in the changing environment.

Many major courses also cover selected liberal arts core requirements. Students are encouraged to use their extensive free electives to enrich and enhance their overall college resume. Students often add breadth or even double major within the department, complete a complementary major or minor, complete for-credit internships, study abroad, or study in Philadelphia or Washington, D.C. Students working closely with their academic advisor can take full advantage of these opportunities and still graduate on time.

Students have several study abroad options with business classes conducted in English. This includes programs at the London Metropolitan University; Monash University in Australia; the Umbra Institute in Perugia, Italy; and Waikato University in New Zealand. Students seeking to develop their foreign language skills beyond the introductory level have a number of programs to choose from. Most programs are bi-lingual, mixing classes in the native language with classes taught in English. The Philadelphia and Washington, D.C., programs combine academic study and pre-professional internships. A short duration study program is available each summer in Maastricht, The Netherlands, which also completes the foreign study general education requirement.

The College and the department are also members of the Middle Atlantic Association of Colleges of Business Administration (MAACBA).

## **Accounting Program**

The program in accounting offers the Bachelor of Science degree in accounting. Majors receive an excellent foundation for seeking professional certification as a CPA or CMA. The accounting curriculum prepares students for careers in public accounting, government, industry, or finance. The 27 credits of accounting, business law, and finance courses in the undergraduate major exceeds the 24 credit standard required to start sitting for the CPA exam upon completion of the undergraduate degree (120 total semester credits).

The curriculum includes an array of introductory, intermediate, and advanced accounting topics integrated with courses in business and other supporting fields. Accounting students can complete all 36 of the accounting, finance, and business law credits required for CPA licensure by judicious use of the free elective credits created by the overlap between the accounting major and the general education requirements. This frees graduates to consider a wider range of options for completing the final 30 credits (undergraduate or graduate) needed to secure CPA licensure in Pennsylvania after December 31, 2011.

*Degree Requirements:*

*Degree:* Bachelor of Science with a major in accounting.



*Major:* Foundation Courses: ACT 161, 162; ECN 101, 102; MAS 111, 150 or 161; MAS 170, 270 or 372; BUS 130, 160. Core Courses; BUS 230, 285, 340, 361, 371, 460, 485; ACT 251, 252, 353 or 455; two electives in accounting not to include ACT 400 (60 credits).

*Minor:* ACT 161, 162, 251, 252, 353 or 455, six credit hours of accounting electives not to include internship credit (21 credits).

*Courses in Accounting:*

**ACT 161. Financial Accounting.** 3 credits.

**ACT 162. Managerial Accounting.** 3 credits.

**ACT 251. Intermediate Accounting I.** 3 credits.

**ACT 252. Intermediate Accounting II.** 3 credits.

**ACT 253. Intermediate Accounting III.** 3 credits.

**ACT 280. Financial Fraud: Prevention and Detection.** 3 credits.

**ACT 351. Advanced Accounting.** 3 credits.

**ACT 352. Government and Non-Profit Accounting.** 3 credits.

**ACT 353. Cost Accounting.** 3 credits.

**ACT 400. Internship.** 1-12 credits.

**ACT 451. Individual Income Tax.** 3 credits.

**ACT 452. Corporate Taxation.** 3 credits.

**ACT 455. Auditing.** 3 credits.

## **Business Administration Program**

This popular program offers the Bachelor of Science degree in business administration. This major is designed to prepare the student for a variety of entry-level and middle-management positions in industry, government and service organizations.

The business curriculum conforms closely to the national common body of knowledge recommended by The Association of Collegiate Business Schools and Programs (ACBSP) and provides a solid background in the fundamentals of business. Majors complete a general business curriculum that prepares them for a variety of positions. Students desiring more in-depth study in a specific area of business may select a focus area composed of optional courses. Such focus areas include human resource/labor relations, international relations, marketing and public relations, and organizational psychology.

*Degree Requirements:*

*Degree:* Bachelor of Science with a major in business administration.

*Major:* Foundation Courses; ECN 101, 102; ACT 161, 162; MAS 111, 150 or 161; 170, 270 or 372; BUS 130, 160. Core Courses; BUS 230, 285, 340, 350, 361, 371, 376, 383, 450, 460, 485. (57 credits.)

*Minor:* ECN 101; ACT 161; BUS 130, 230, 340, 371; BUS 285 or one 300/400 business elective not to include internship credit. (21 credits.)

*Courses in Business:*

**BUS 130. Modern Business Organizations.** 3 credits.

**BUS 160. Computer Applications.** 3 credits.  
**BUS 230. Principles of Management.** 3 credits.  
**BUS 280. Financial Fraud: Prevention and Detection.** 3 credits.  
**BUS 285. Organizational Communications.** 3 credits. [WP]  
**BUS 340. Principles of Marketing.** 3 credits.  
**BUS 341. Consumer & Organizational Buying Behavior.** 3 credits.  
**BUS 350. Organizational Behavior.** 3 credits.  
**BUS 361. Principles of Finance.** 3 credits.  
**BUS 362. Investments.** 3 credits.  
**BUS 371. Business Law I.** 3 credits.  
**BUS 372. Business Law II.** 3 credits.  
**BUS 374. Personal Selling and Sales Management.** 3 credits.  
**BUS 376. International Business Management.** 3 credits.  
**BUS 381. Entrepreneurship and Small Business Management.** 3 credits.  
**BUS 383. Management Science.** 3 credits.  
**BUS 400. Internship.** 1-12 credits.  
**BUS 420. Human Resource Management.** 3 credits.  
**BUS 450. Business Ethics and Social Responsibility.** 3 credits.  
**BUS 460. Management Information Systems.** 3 credits.  
**BUS 461. Corporate Finance.** 3 credits.  
**BUS 485. Strategic Management.** 3 credits. [WP]

## **Economics Program**

The major in economics deals with decisions and choices made by individuals and firms and with the micro and macroeconomic consequences of those choices. Economists have a wide variety of employment opportunities in government and the private sector. The major includes courses in mathematics, political science and economics.

### *Degree Requirements:*

Degree: Bachelor of Arts with a major in economics.

*Major:* Foundation Courses: PSC 110; one of three mathematics sequences: MAS 150, 161, or MAS 161, 162, or MAS 111, 112; MAS 170, 270 or 372; ECN 101 and 102. Core Courses: ECN 201, 202, 405, and four additional elective courses in economics at the 200 level or above, not including internship credit. (39 credits.)

*Minor:* ECN 101, 102, 201, 202, and two additional courses in economics at the 200 level or above, not including internship credit. (18 credits.)

### *Courses in Economics:*

**ECN 101. Principles of Microeconomics.** 3 credits. [L2]

**ECN 102. Principles of Macroeconomics.** 3 credits. [L2]

**ECN 105. Essentials of Economics.** 3 credits. [L2] Does not equal either ECN 101 or ECN 102.

**ECN 201. Intermediate Microeconomic Analysis.** 3 credits.

**ECN 202. Intermediate Macroeconomic Analysis.** 3 credits.

**ECN 250. Public Choice Economics.** 3 credits.  
**ECN 312. Money and Banking.** 3 credits.  
**ECN 316. Environmental Economics.** 3 credits.  
**ECN 317. Energy and Natural Resource Economics.** 3 credits.  
**ECN 321. Public Finance.** 3 credits. [WP]  
**ECN 331. International Finance.** 3 credits.  
**ECN 332. International Trade.** 3 credits. [WP]  
**ECN 333. Game Theory: Economic Applications.** 3 credits.  
**ECN 400. Internship.** 1-12 credits.  
**ECN 405. Applied Econometrics.** 3 credits.  
**ECN 410. Senior Seminar.** 3 credits. [WP]

## **Health Care Management Program**

The major in health care management is designed for people in health care fields who possess an associate degree or diploma and professional certification. These qualifications are required for admission to the program. The program combines studies in the liberal arts and management, plus business practices common to the health care industry.

### *Degree Requirements:*

*Degree:* Bachelor of Science with a major in health care management.

*Major:* Health Care Management Foundation Courses: ECN 101, 102; ACT 161, 162; MAS 170, 270 OR 372; BUS 130 (may be waived for prior work experience). Core Courses: ENG 111; SOC 324; BUS 215, 230, 285, 340, 350, 371, 420, 450 (or PHL 160), 487; 12-15 credits in sociology, psychology, or other disciplines approved by the director of continuing education (at least 6 credits in courses at the 200 level or higher). (63-66 credits total).

Admission to this degree program is open only to adults who have completed successfully an accredited diploma or associate degree program with certification by a state governmental agency or a national professional accrediting organization in the following fields: Clinical Medical Assistant, Cytotechnologist, Dental Hygienist, Emergency Medical Technician, Medical Laboratory Technician, Nuclear Medicine Technologist, Occupational Therapy Assistant, Physical Therapy Assistant, Radiologic Technologist, Registered Nurse, Respiratory Therapist, Clinical Perfusionist, Surgical Technician.

### *Courses in Health Care Management:*

**BUS 215. Health Care Finance.** 3 credits.

**BUS 487. Health Care Management.** 3 credits.

For additional information about these program, including faculty and full course descriptions, please visit [www.lvc.edu/business-economics](http://www.lvc.edu/business-economics).

# DEPARTMENT OF CHEMISTRY

## Chemistry Program

Chemistry is the transformative science that underlies much of our modern technological society. Chemistry plays a leading role in discovering new sources of critically needed energy, in designing and synthesizing the latest wonder drugs, in solving crimes by precise chemical analyses of physical evidence, in analyzing the environment for ultratrace levels of toxins, and in preparing the myriad of new high-tech materials used in space exploration, in transportation, in communications, in clothing, and even in our new high-tech modes of recreation. Chemistry is everywhere and touches on almost every aspect of our daily lives.

Career opportunities in chemistry are numerous and diverse. Many students enter academic, industrial or governmental laboratories where they find positions in research and development, analysis, or quality control. Possibilities outside the laboratory include teaching, sales, marketing, technical writing, business and law. Many chemistry students earn doctoral degrees in chemistry or biochemistry or in the areas of medicine, dentistry or veterinary medicine.

The Department of Chemistry is located on the upper two floors of the newly renovated Neidig-Garber Science Center. Among the major scientific equipment holdings used by students in laboratory courses and in research are a liquid chromatograph-mass spectrometer (LC-MS-MS), a superconducting nuclear magnetic resonance spectrometer (FTNMR), a MALDI-TOF mass spectrometer, a liquid scintillation counter, an infrared spectrometer (FTIR), high-performance liquid chromatographic (HPLC) systems, UV-visible spectrophotometers, a laser-Raman spectrophotometer, a gas chromatograph-mass spectrometer (GC-MS), a chemisorption analyzer, and an atomic absorption spectrophotometer. Most laboratories have computers on the benchtop for data entry and analysis and for molecular modeling.

The department actively encourages students to discover the excitement and challenge of laboratory research. Research programs are conducted during both the academic year and the summer. Students are paid for summer research either from college funds or from external grants that faculty receive to support their projects. The department also maintains an active internship program, actively assisting students in finding opportunities in industrial or academic laboratories.

The department offers two degrees to those interested in chemistry and one for those interested in biochemistry. The Bachelor of Science in Chemistry is the more demanding of the two degrees in chemistry and is certified by the American Chemical Society. This degree has a required research component and is recommended for students who wish to become practicing chemists or enroll in graduate school. Other students opt for the standard Bachelor of Science, majoring in chemistry.

The major in biochemistry is offered jointly with the Biology Department. For the major program and course descriptions in biochemistry, see page 50.

The Chemistry Department also participates in the 3+2 Engineering Program and directs the chemical engineering track. For details, see Cooperative Programs on page 28.

### *Degree Requirements:*

*Degrees:* Bachelor of Science in Chemistry, Bachelor of Science with a major in chemistry.

*Majors:* (B.S. in Chemistry) CHM 111, 112, 115, 116, 213, 214, 215, 216, 222, 230, 305, 306, 307, 308, 311, 312, 321, 322, 411; BCMB 421; three credits from CHM 412–490 or BCMB 422; four credits of CHM 510; MAS 161, 162; PHY 111, 112 (63–64 credits).

(B.S., major in chemistry) CHM 111, 112, 115, 116, 213, 214, 215, 216, 222, 230, 305, 306, 307, 308, 311, 312, 321, 322; MAS 161, 162; PHY 111, 112; (50–51 credits).

*Minor:* CHM 111, 112 and either CHM 113, 114 or CHM 115, 116; 12 credits from CHM 213, 214, 222, 305, 306, 311, 312, 411 or BCMB 421, 422; three credits from CHM 215, 216, 230, 307, 308, 321, 322 or BCMB 430.

*Secondary Teacher Certification:* In addition to a major in chemistry, students seeking secondary certification in chemistry must take BIO 111, 112; and BCMB 421. Certification candidates must also complete 33 credits in additional required coursework. See the Education Department section on page 52 for additional information.

### *Courses in Chemistry:*

**CHM 111. Principles of Chemistry I.** 3 credits. [L3]

**CHM 112. Principles of Chemistry II.** 3 credits. [L3]

**CHM 113. Introductory Laboratory I.** 1 credit. [L3]

**CHM 114. Introductory Laboratory II.** 1 credit. [L3]

**CHM 115. Techniques of Chemistry I.** 1 credit. [L3]

**CHM 116. Techniques of Chemistry II.** 1 credit. [L3]

**CHM 213. Organic Chemistry I.** 3 credits.

**CHM 214. Organic Chemistry II.** 3 credits.

**CHM 215. Organic Laboratory I.** 1 credit.

**CHM 216. Organic Laboratory II.** 1 credit.

**CHM 222. Introductory Inorganic Chemistry.** 3 credits.

**CHM 230. Inorganic Chemistry Laboratory.** 1 credit. [WP]

**CHM 305. Analytical Chemistry.** 3 credits.

**CHM 306. Instrumental Analysis.** 3 credits.

**CHM 307. Quantitative Analysis Lab.** 1 credit.

**CHM 308. Instrumental Analysis Lab.** 1 credit.

**CHM 311. Physical Chemistry I.** 3 credits.

**CHM 312. Physical Chemistry II.** 3 credits.

**CHM 321. Physical Laboratory I.** 1 credit. [WP]

**CHM 322. Physical Laboratory II.** 1 credit. [WP]

**CHM 411. Advanced Inorganic Chemistry.** 3 credits.

**CHM 412. Advanced Physical Chemistry.** 3 credits.

**CHM 414. Advanced Organic Chemistry.** 3 credits.

**CHM 421. Chemometrics.** 3 credits.

**CHM 510. Chemical Research.** 1-4 credits.

*Courses in Science:*

**SCI 100. Introduction to Science.** 4 credits. [L3]

For additional information about this program, including faculty and full course descriptions, please visit [www.lvc.edu/chemistry](http://www.lvc.edu/chemistry).

## **CITIZENSHIP EDUCATION PROGRAM**

The College offers a program for students seeking certification to teach Citizenship Education in the secondary schools. The program includes three required components: the Citizenship Education core, the secondary education core, and a major in one of the following disciplines: history or political science. Graduation requirements for each of these majors are noted in this catalog under the appropriate department. There is no major in citizenship education. Dr. James H. Broussard is the coordinator of the Citizenship Education Certification Program.

*Program Requirements:*

*Citizenship education core courses:* ECN 105; HIS 103, 105, 125, 126, 202; PSC 110, 210, 245, an upper division course in American government (PSC 330 State and Local Politics recommended). (33 credits).

*Secondary education core courses:* Certification candidates must also complete 33 credits in additional required coursework. See the Education Department section on page 52 for additional information.

*Major courses:* history (36 credits) or political science (39 credits).

## **DEPARTMENT OF DIGITAL COMMUNICATIONS**

The Digital Communications major explores the interrelated elements of communication, business, design, and computer science in a setting that emphasizes user-centered design. The major fosters critical reasoning, creativity, innovation, and problem solving so that graduates have the ability to evolve as quickly as current technology.

The interdisciplinary nature of the major means that a program of study in digital communications relies on diverse methods and theories from the fields of art, business, communications, and programming. After graduating with a B.S. degree in digital communications, the student is prepared to enter a wide range of communications, commerce, or technology-related positions in advertising, marketing, e-commerce, public relations, information technology, journalism, graphic design, experience design, web/multimedia design and development, and programming or further study in graduate programs such as communications, digital media/arts, library science, technical writing, instructional design, industrial design, and business.

User-centered design and usability testing provide the foundation for this curriculum. Students will study design, content creation, programming, and business in the context of designing projects, business plans, or programs that account for the interests, habits, and behaviors of real users. They will study the interdisciplinary techniques with which content is created, processed, and delivered. They will apply these theories in designing effective communications and will employ emerging technologies and usability testing strategies to create and test the projects and ideas they developed.

The department's curriculum, designed to be interdisciplinary and integrative, emphasizes critical thinking, creativity, and analysis, rather than specific applications and technologies. Students in digital communications will complete advanced coursework in one of the four areas to form a concentration in business, communications, computer science, or design. The General Education Program at the College, together with the courses in the students' concentration, will expose the students to the fundamental questions of how information is created, processed, understood, and communicated.

*Degree Requirements:*

*Degree:* Bachelor of Science with a major in Digital Communications. (51 credits.)

*Major Core:* DCOM 130, 230, 330; CSC 115, DCOM 100, 200, 300; DCOM 255, 256; DCOM 265, 365; DCOM 285, 385; DCOM 099, 400, 430, 440.

In addition to the core, each major must select a concentration in design, business, communications, or computer science and take three additional courses in the concentration. At the discretion of the student's advisor, courses from other concentrations or from outside DCOM can be used to satisfy the required courses in business, communications, and design.

*Business:* BUS 130, and at least two courses from the following list: BUS 230, 285, 340, 341, 350, 374, 376, or 460.

*Communications:* DCOM 316, 375, 485, 495; ENG 213, 314, 315, 380

*Design:* ART 205, 211, 217, 319, 351, 405; DCOM 210, 344/345, 375 with at least one course at the 300 level.

*Computer Science:* CSC 131, 132, 231. Note: 231 will have a prerequisite of MAS 161.

*Courses in Digital Communications:*

**DCOM 099. Portfolio.** 0 credits.

**DCOM 100. Web Authoring.** 1 credit.

**DCOM 130. Principles of Information Design.** 3 credits.

**DCOM 200. Design Authoring.** 1 credit.

**DCOM 210. Graphic Design.** 3 credits.

**DCOM 230. Information Law and Ethics.** 3 credits.

**DCOM 255. Fundamentals of Design.** 3 credits.

**DCOM 256. Digital Graphic Design.** 3 credits.

**DCOM 265. E-Commerce.** 3 credits.



**DCOM 285. Writing for Digital Media.** 3 credits. [WP]  
**DCOM 300. Dynamic Authoring.** 1 credit.  
**DCOM 316. Journalism in the Digital Age.** 3 credits.  
**DCOM 330. Usability Design and Testing.** 3 credits.  
**DCOM 344. Digital Video Authoring.** 1 credit.  
**DCOM 345. Digital Video.** 3 credits.  
**DCOM 365. E-Business Strategy.** 3 credits.  
**DCOM 375. Advanced Website Design.** 3 credits.  
**DCOM 385. Multimedia.** 3 credits.  
**DCOM 386. Video Games: History, Theory, and Social Impact.** 3 credits.  
 [DSP]  
**DCOM 430. Capstone - Project Management.** 3 credits.  
**DCOM 440. Capstone-Research and Development.** 3 credits.  
**DCOM 485. Media Theory.** 3 credits.  
**DCOM 495. Storytelling: Books to Video Games.** 3 credits. [L5]

For additional information about this program, including faculty and full course descriptions, please visit [www.lvc.edu/digital-communications](http://www.lvc.edu/digital-communications).

## DEPARTMENT OF EDUCATION

**The State of Pennsylvania is in the process of making major changes to all teacher certification programs across the State of Pennsylvania. These changes went into effect with the incoming class of 2009 and will result in the old certification requirements becoming void after January 1, 2013. Any certification program begun before the fall semester 2009 and not completed before January 1, 2013 will result in the State not accepting your application for certification. There is no provision in the law for exceptions to this rule.**

After January 1, 2013, the elementary (K–6) and special education (K–grade 12) certifications will no longer be issued by the Pennsylvania Department of Education. These programs have been replaced with two new certificates: Early Childhood Education (ECE, PreK–grade 4) and Special Education (PreK–grade 8) majors. The Lebanon Valley College Education Department does not offer a certification in Special Education (grade 7–grade 12) or Middle Level Education (grade 4–grade 8).

Regardless of your certification program, you will learn how to put educational theory into practice using the latest teaching methodologies. Beginning in your freshman year and continuing through your senior year, you will observe talented teachers at work in a variety of classroom settings with all types of students. After observing classes, you will go from tutoring individuals to actually planning and teaching lessons. By your senior year you will begin practicing your profession as a full-time student teacher.

Post-baccalaureate certification is also available for those who wish to become teachers or for those already certified who want to add early childhood education,



special education (PreK–grade 8), or a secondary certification area to an existing certificate.

Certification in two or more areas of teacher preparation is possible; however, such certification requires meticulous attention to scheduling and may require additional semesters. Early Childhood Education majors who, as freshmen, begin to pursue ECE, or ECE/special education (PreK–grade 8) certifications, will be able to complete them within their four years of study, unless they add other elements to their studies, such as pursuing an additional minor, double majoring in content areas outside the Education Department, going abroad, etc. Careful and early scheduling can avoid misconceptions about such issues.

The Education Department is intent on preparing well-rounded and qualified graduates who will exercise genuinely professional and personal leadership roles in the schools and communities where they will live and work.

In accord with the regulations set forth in Chapter 354 and Chapter 49-2 of the Pennsylvania School Code, the following criteria must be met by all candidates who seek teacher certification at Lebanon Valley College:

I. All teacher candidates must be admitted to teacher certification candidacy by a formal and clearly delineated process that is distinct from admission to the College and/or to the major.

II. Admission to teacher certification candidacy (Chapter 354) is neither automatic nor synonymous with admission to the College or to the major.

III. Admission to teacher certification candidacy is contingent upon the completion of these criteria:

- (1) completion of a minimum of 48 college credits;
- (2) an overall GPA, after having completed 48 or more college credits, of at least 3.0;
- (3) completion of at least one English composition course;
- (4) completion of one English or American literature course;
- (5) completion of two college level mathematics courses;
- (6) passing scores on these PRAXIS Tests: PPST Reading; PPST: Writing; PPST: Mathematics for K–12 or 7–12 certification candidates or the Pre-service Academic Performance Assessment (PAPA) for Early Childhood Education majors or Early Childhood Education/Special Education dual majors.
- (7) completion of the Application for Admission to Teacher Certification Candidacy form, available from the major adviser.

IV. Those students who do not meet the above criteria may continue to pursue teacher certification, even though they are not and cannot be considered candidates for teacher certification until all of the above requirements have been met.

V. Once all of the above requirements have been met, the student must see his or her advisor to complete the Application for Admission to Teacher Certification Candidacy form,

VI. Students who are not formally admitted to teacher certification candidacy

cannot student teach nor will they be able to be recommended for teacher certification upon graduation.

VII. Students who have been formally admitted to teacher certification candidacy, but who afterward fall below the required overall GPA of 3.0, may continue in the program; however, they may not student teach unless and until they have achieved the required overall GPA of 3.0.

VIII. Students must have the required minimum overall GPA of 3.0 at the time of graduation in order to be eligible for recommendation by the college for teacher certification.

The Chapter 49-2 regulations redefine the certification requirements for elementary education and special education in Pennsylvania. In addition, this law mandates that all certification students receive nine credits, or the equivalent, of instruction in Special Education and three credits, or the equivalent, of instruction in English as a Second Language (ESL).

## **Title II**

In accordance with state and federal regulations, Lebanon Valley College regularly reports the aggregate student data to the Pennsylvania Department of Education. HEA – Title II 2009–2010 academic data (the last year of available data) shows the overall pass rate to be 99 percent for all reported assessment categories. This translates to 98 out of 99 LVC students passing all the required exams for certification. Many factors, such as the number of students in the program, number of tests required for licensure, the number of licensure candidates who complete all required exams before graduation, and the number of teacher certification candidates who actually take the licensure exams, affect the overall College scores.

## **Education Program**

### *Degree Requirements:*

There is no major or minor in general education.

### *Courses in Education (EDU):*

**EDU 140. Educational Technology and Instructional Media.** 3 credits.

**EDU 240. Language, Cultural Diversity and Academic Achievement:**

**PreK-Grade 8.** 3 credits. [SDS]

**EDU 245. Language, Cultural Diversity and Academic Achievement: Grade**

**7-Grade 12.** 3 credits. [SDS]

**EDU 450. Curriculum and Instruction for the Young Adolescent.** 3 credits.

[WP]

## **Early Childhood Education**

The Education Department is committed to preparing early childhood education majors who have a thorough grounding in the disciplines they will teach within the context of a strong liberal arts foundation. The program includes intensive training in the content and methodologies of all early childhood education content areas.

The field-centered component in the program requires extensive and carefully sequenced opportunities to work with teachers and children in a variety of school settings during all four years of preparation for teaching. The Education Department has established strong relationships with local public, parochial, and private schools. Depending on the course, majors spend between two and five hours per week each semester in various classrooms, observing teachers and children, aiding, tutoring, providing small-group and whole-class instruction, and completing tasks on increasingly challenging levels of involvement. Student teacher candidates spend the semester immediately preceding the student teaching semester with their assigned cooperating teachers. Seniors spend the fall semester in full-time student teaching with cooperating teachers who have been carefully chosen for that role. Additional opportunities are provided for our students to work in nursery schools, child care centers, middle schools, and in classes for exceptional children.

*Degree Requirements:*

*Degree:* Bachelor of Science with a major in early childhood education.

*Major:* Early childhood education majors must take: ECE 110, 115, 210, 220, 230, 240, 310, 320, 330, 335, 340, 350, 360, 370, 380, 385, 410 (note: ECE 115 and 385 are not required for special education double-majors); EDU 140, 240; SPE 250, 255; two college-level mathematics courses, an English composition course, and an American or British literature course (75 credits).

*Note:* Students may graduate with the B.S. degree without completing student teaching. Students who are pursuing teacher certification must also complete 12 credit hours of ECE 440 Student Teaching in addition to completing all requirements for the major in Early Childhood Education Education.

*Courses in Early Childhood Education:*

**ECE 110. Child Development I.** 3 credits.

**ECE 115. Child Development II.** 3 credits.

**ECE 210. Family Partnerships.** 3 credits.

**ECE 220. Theory and Practices.** 3 credits.

**ECE 230. Creative Arts.** 3 credits.

**ECE 240. Literacy and Literature I.** 3 credits.

**ECE 310. Math Methods.** 3 credits.

**ECE 320. Program Design and Curriculum Development.** 3 credits.

**ECE 330. Literacy and Literature II.** 3 credits.

**ECE 335. Literacy and Literature III.** 3 credits. [WP]

**ECE 340. Teacher Researcher.** 3 credits. [WP]

**ECE 350. Child Wellness.** 3 credits.

**ECE 360. Social Studies Methods.** 3 credits.

**ECE 370. Play and Projects.** 3 credits.

**ECE 380. Science Methods.** 3 credits.

**ECE 385. Advocacy, Leadership, and Collaboration.** 3 credits.

**ECE 410. Senior Capstone.** 3 credits.

**ECE 440. ECE Student Teaching.** 12 credits.

## Secondary and K–12 Teacher Certification Program

(Students who entered the program prior to fall 2009, or who can complete coursework, certification examinations, and the application process by the end of the fall 2012 semester, should refer to the 2008–2009 catalog for program details)

Students pursuing secondary and K–12 teacher certification are prepared for teaching by completing an intensive program in the departmental major(s) of their choice in conjunction with a carefully sequenced professional education component within the Education Department. Both the major program and the professional education component are completed within the context of a strong foundation in the liberal arts.

Departmental majors may seek secondary certification in, biology, chemistry, citizenship education, English, mathematics, physics, and social studies. K–12 certification is available in art, French, German, and Spanish. K–12 certification is also available in music; please see the Music Department section for details.

Candidates are provided with opportunities to observe and to teach in junior high, middle school, and high school settings prior to the full-time student teaching semester. Cooperating teachers are selected through a process involving College faculty, secondary school personnel, and the student teachers, thus assuring the most beneficial placements possible.

### *Degree Requirements:*

There is no major in education for those interested in secondary or K–12 teaching. Students complete the requirements in their chosen major, including any additional related courses required for certification, and the designated professional education courses.

*Degree:* Bachelor of Arts or Bachelor of Science in the chosen major. (Majors: art and art history, biology, chemistry, English, French, German, history [citizenship education or social studies], mathematics, physics, political science [citizenship education or social studies], and Spanish.)

*Secondary and K-12 Teacher Certification:* Students entering LVC during August 2009 or later and seeking secondary certification must meet all Act 354 and Act 49-2 requirements outlined in the beginning of this section, complete the approved program in the chosen major and 33 credits in education courses, consisting of SED 110, EDU 245 (students seeking K–12 certification may take EDU 240 instead of 245), SPE 250, SPE 255, SED 430, SED 431, SED 440, and the appropriate content methods class SED 361, SED 362, SED 363, SED 364, SED 365, or SED 366. Students transferring credits into the program from other institutions, may need to take SPE 258 in addition to the other courses listed. SED 280 or SED 431 must be taken in the fall or spring semester immediately preceding the student teaching semester.

### *Courses in Secondary Education:*

**SED 110. Foundations of Education.** 3 credits.

**SED 280. Field Practicum in the Secondary School.** 0 credits.

**SED 361. Teaching of Art in Schools.** 3 credits.  
**SED 362. Teaching of the Sciences in the Secondary Schools.** 3 credits.  
**SED 363. Teaching of Social Sciences in the Secondary Schools.** 3 credits.  
**SED 364. Teaching of English in the Secondary Schools.** 3 credits.  
**SED 365. Teaching of Second Languages in Schools.** 3 credits.  
**SED 366. Teaching of Mathematics in the Secondary Schools.** 3 credits.  
**SED 430. Practicum and Methods I.** 3 credits.  
**SED 431. Practicum and Methods II.** 3 credits.  
**SED 440. Student Teaching.** 12 credits.

### **Special Education PreK–Grade 8 Program**

The Special Education Program consists of ten courses and, according to the Pennsylvania Department of Education's regulations, may only be taken as a dual major with the PreK–Grade 4 Early Childhood Education or the Grade 4–Grade 8 Middle Level majors. Student teaching experiences are provided in two settings: one in a regular school setting and the second in a special education setting. Program graduates are certified to teach in early childhood education programs and in special education in the PreK to grade 8 grade levels.

#### *Degree Requirements:*

Students must complete a dual major in early childhood education plus special education.

*Degree:* Bachelor of Science in early childhood education. There is not a separate degree in special education.

#### *Courses in Special Education:*

**SPE 250. Cognitive Development of Diverse Learners.** 3 credits. [WP]  
**SPE 255. Special Education Processes and Procedures.** 3 credits.  
**SPE 258. Effective Instructional and Behavioral Strategies for Students with Disabilities.** 3 credits.  
**SPE 260. Evidenced Based Effective Instruction in Educating Students Identified with a High Incidence Disability.** 3 credits.  
**SPE 263. Intensive Math and Content Area Intervention Approaches.** 3 credits.  
**SPE 266. Evidenced Based Effective Instruction in Intervention Approaches Educating Students Identified With a Low Incidence Disability.** 3 credits.  
**SPE 269. Positive Behavioral Supports - Evidence Based Behavioral Intervention and Prevention.** 3 credits.  
**SPE 360. Intensive Language Arts Intervention Approaches.** 3 credits.  
**SPE 363. Assessment in Special Education.** 3 credits.  
**SPE 366. Collaboration and Communication - Advocacy, Leadership, and Ethical Practice.** 3 credits.

For additional information about this program, including faculty and full course descriptions, please visit [www.lvc.edu/education](http://www.lvc.edu/education).

# DEPARTMENT OF ENGLISH

## English Program

The major in English at Lebanon Valley College advances the key goals of a liberal arts education by teaching students to ask probing questions about a wide range of texts and to appreciate the variety of creative accomplishments in the English language. While majors may choose to concentrate in literature, communications, creative writing, theater or secondary education, the basis for all concentrations is the study of literature: imaginative, complex, and challenging texts in a variety of genres and media. All majors learn the skills of clear, concise and correct expression as well as of effective collection, organization and presentation of material. Such study prepares students for graduate work in their area of interest or for professional study in such fields as law and theology. Graduates of the Department of English also are prepared to work in publishing, teaching, editing, public relations, journalism, advertising, marketing, theater, business, and other professions.

**Independent Study:** Juniors and seniors with a minimum 2.00 GPA, who wish to study an in-depth topic that is not covered in any offered courses, may choose to take an independent study. For every semester hour of credit, the student must complete at least 45 clock hours of time working on what should ultimately result in a final formal document. Students are responsible for completing the necessary application forms (available in the Registrar's Office) and finding a professor to oversee their progress.

Students may enroll in a maximum of three credit hours per independent study in any one semester. A maximum of six credit hours in independent study may be used toward the graduation requirements.

**Departmental Honors:** English majors with a minimum 3.0 cumulative GPA and 3.50 major GPA at the beginning of their junior year may choose to apply for departmental honors in conjunction with an independent study. Details are available on the English Department web page.

The English Department offers minors in literature, communications, creative writing, and theater.

### *Degree Requirements:*

*Degree:* Bachelor of Arts with a major in English.

*Major:* Core requirements: ENG 120; two from 221–228 (at least one of the two must be 221 or 225); 321; 341 or 342 (15 credits). Students must choose one of the concentrations below in addition to the core.

*Literature concentration:* Three additional survey courses (ENG 221–228; two of the five courses must be 221 and 225); 370, 499; four from among 150, 341 or 342 (not taken in the core), 351, 352, 375, 390-literature, 420, 421, 451 (24 credits).

*Communications concentration:* ENG 099, 140; six additional communications courses, at least two of which must be at the 300 level (150, 201, 202, 213, 217, 314–318, 375, 380, 390-communications); at least three credits of 400 (24 credits).

*Creative Writing concentration:* ENG 150, 219 (taken twice—once in poetry, once in fiction—for six credits), 319, 450; four from among 180, 201, 202, 217, 318, 341 or 342 (not taken in the core), 351, 352, 375, 390-literature, 420, 421, 451 (24 credits).

*Theater concentration:* ENG 180; 201, 202, 204; three credits of 301; three additional drama-related courses from among the following: 217, 301 (three credits), 341 or 342, 375, 390-literature, three credits of 400 (24 credits).

*Secondary Education concentration:* Two additional survey courses from ENG 221–228 (the total of four surveys must include at least three from 221–226); 201; 213; three from among 334, 341 or 342 (not taken in the core), 351, 352, 375, 390-literature, 420, 421 (21 credits). Certification candidates must also complete 33 credits in additional required coursework. See the Education Department section on pages 84–85 for additional information.

*Minor (Literature):* ENG 120; 221 or 222; two from 225–228; three additional 300 or 400-level literature courses (21 credits).

*Minor (Communications):* ENG 120, 140, 221 or 222; three additional 200- or 300-level communications courses (21 credits).

*Minor (Creative Writing):* ENG 120, 150, 219 (taken twice—once in poetry, once in fiction—for six credits), 319; two additional 300 or 400-level literature courses (21 credits).

*Minor (Theater):* ENG 120, 180, 204; one from 201 or 202, or three credits of 301; 341 or 342; six additional credits to be selected in consultation with the student's adviser (21 credits).

### *Courses in English:*

**ENG 099. Internship Portfolio.** 0 credits.

**ENG 111. English Communications I.** 3 credits. [EC]

**ENG 112. English Communications II.** 3 credits. [EC]

**ENG 120. Introduction to Literature.** 3 credits. [L5]

**ENG 140. Introduction to Media in the Digital Age.** 3 credits.

**ENG 150. Introduction to Creative Writing.** 3 credits.

**ENG 180. Introduction to Theater.** 3 credits. [L5]

**ENG 201. Basic Acting.** 3 credits.

**ENG 202. Advanced Acting.** 3 credits.

**ENG 204. Theater Production and Performance.** 3 credits.

**ENG 213. Journalism: News Reporting.** 3 credits. [WP]

**ENG 217. Multimedia Narratives.** 3 credits.

**ENG 219. Creative Writing Workshop.** 3 credits.

**ENG 221. Survey of American Literature I.** 3 credits. [L5]

**ENG 222. Survey of American Literature II.** 3 credits. [L5]

**ENG 225. Survey of English Literature I.** 3 credits. [L5]

**ENG 226. Survey of English Literature II.** 3 credits. [L5]

**ENG 227. Survey of World Literature I.** 3 credits. [L5]



**ENG 228. Survey of World Literature II.** 3 credits. [L5]  
**ENG 301. Acting Lab.** 1 credit.  
**ENG 314. Public Relations in the Digital Age.** 3 credits.  
**ENG 315. Editing.** 3 credits. [WP]  
**ENG 316. Journalism in the Digital Age.** 3 credits.  
**ENG 317. Multimedia Feature Writing.** 3 credits.  
**ENG 318. Persuasive Communications.** 3 credits.  
**ENG 319. Craft of a Genre.** 3 credits.  
**ENG 321. History and Grammar of the English Language.** 3 credits.  
**ENG 334. Adolescent Literature.** 3 credits. [WP]  
**ENG 341. Shakespeare I.** 3 credits. [WP]  
**ENG 342. Shakespeare II.** 3 credits. [WP]  
**ENG 351. Poetry.** 3 credits. [WP]  
**ENG 352. The Novel.** 3 credits. [WP]  
**ENG 370. Literary Theory and Its Applications.** 3 credits.  
**ENG 375. Film.** 3 credits. [L5]  
**ENG 380. Politics and Media in the Digital Age.** 3 credits.  
**ENG 390. Special Topics.** 3 credits.  
**ENG 400. Internship.** 1-12 credits.  
**ENG 420. African-American Literature.** 3 credits. [SDS]  
**ENG 421. Literature by Women.** 3 credits. [SDS]  
**ENG 450. Creative Writing Portfolio.** 0 credits.  
**ENG 451. Postcolonial/Anglophone Literature.** 3 credits. [WP]  
**ENG 499. Literature Capstone.** 0 credits.

For additional information about this program, including faculty and full course descriptions, please visit [www.lvc.edu/english](http://www.lvc.edu/english).

## DEPARTMENT OF HISTORY AND POLITICAL SCIENCE

The Department of History and Political Science seeks to help students on their path to enjoying an intellectually rich life and a successful career, and to providing service to others. The study of history and politics is essential to understanding American society and government and our relationships with diverse communities around the globe. This knowledge is essential for students to understand the realities of the world that they were born into, the values that they inherit and adopt, and the planet that they will help to make. The department helps to promote critical skills in reading and thinking to improve students' written and spoken communication. The department is committed to ensuring that all of its majors are prepared to handle the challenges they will face in their careers, whether their training is in political science, international studies, law, history, historical communications, or secondary education.



## **Secondary Education Certification**

Students shall successfully complete a history or political science major plus the required courses outlined in either the citizenship education (see page 46) or social studies section (see page 81) and in the Education Department section (see page 52).

### **History Program**

By examining human behavior in the past, the study of history can help people better understand themselves and others. Students of history also learn how to gather and analyze information and present their conclusions in clear, concise language.

An undergraduate degree in history can lead to a career in teaching at the college or high school level, law, government, politics, the ministry, museums and libraries, journalism or editing, historical societies and archives, historical communications, or a number of other professions.

#### *Degree Requirements:*

*Degree:* Bachelor of Arts with a major in history.

*Major:* History 250, 499; four 3 credit 100 level courses. Six electives at the 200 level or above; two must be non-U.S.; two must be 300 level; elective courses can count towards two requirements. 36 credits.

*Secondary Education Certification:* Students shall successfully complete the history major plus the required courses outlined in either the citizenship education (see page 46) or social studies section (see page 81) and in the Education Department section (see page 52).

*Minor:* HIS 250; three 3-credit, 100-level courses. Three upper division electives, one of which must be at the 300 level, one of which must be non-U.S. 21 credits.

### **Historical Communications Program**

The History Department offers a historical communications program in conjunction with the English Department, described on page 80. The major in historical communications is an interdisciplinary program that provides the opportunity for interested students to engage in a comprehensive study of both history and communications and their interconnectedness. The program is designed to prepare students for professional research, writing and editing positions in such fields as radio, television, motion pictures, cable, popular history magazines, theatrical history, and oral history. Lebanon Valley College is one of the very few colleges to offer such a major.

#### *Degree Requirements:*

*Degree:* Bachelor of Arts with a major in historical communications.

*Major:* HIS 250, 400; three 3-credit, 100-level courses. Three upper division electives, one at the 300 level, two non-U.S. Also: ENG 140 and ENG 213. Three additional electives drawn from ENG 314, 315. DCOM 130, 210 or approved special topics courses. 42 credits.

*Courses in History:*

**HIS 103. The Ancient World: the Dawn of Civilization to the Fall of the Han and Roman Empires.** 3 credits. [L1]

**HIS 104. The Second Age of Empires: World History From the Fall of Rome to the Mongol Invasions.** 3 credits. [L1]

**HIS 105. Formation of the Modern World.** 3 credits. [L1]

**HIS 125. United States History to 1865.** 3 credits. [L1]

**HIS 126. United States History Since 1865.** 3 credits. [L1]

**HIS 202. Historical Geography.** 3 credits.

**HIS 205. Early Modern Europe.** 3 credits. [WP]

**HIS 206. Revolution and Nationalism.** 3 credits. [WP]

**HIS 207. Europe in the 20th Century.** 3 credits. [L1, WP]

**HIS 210. The History of Modern France, 1750 to the Present.** 3 credits. [L1]

**HIS 215. Law and Government.** 3 credits. [L2, WP]

**HIS 217. Women in Modern Europe, 1750 to the Present.** 3 credits. [L1, WP]

**HIS 220. Colonial America: a History in Red, White, and Black.** 3 credits.  
[SDS]

**HIS 226. Age of Jefferson and Jackson.** 3 credits. [L1, WP]

**HIS 230. Electing the President.** 3 credits.

**HIS 240. American Military History.** 3 credits. [L1]

**HIS 241. Working-Class Studies.** 3 credits. [SDS]

**HIS 250. The Historian's Craft.** 3 credits. [WP]

**HIS 274. Colonial Latin America.** 3 credits. [FS]

**HIS 275. Modern Latin America.** 3 credits. [FS]

**HIS 301. Evolution for Everyone.** 3 credits. [DSP]

**HIS 303. Seminar on the History of South Africa.** 3 credits. [FS]

**HIS 304. Seminar on the History of Brazil.** 3 credits. [FS]

**HIS 305. History of Mexico.** 3 credits. [FS]

**HIS 310. Seminar on World War I.** 3 credits. [WP]

**HIS 312. The American Revolution.** 3 credits. [WP]

**HIS 315. The Civil War.** 3 credits. [WP]

**HIS 330. The Ruling Class.** 3 credits. [SDS]

**HIS 400. Internship.** 1-12 credits.

**HIS 460. Undergraduate Research.** 1-3 credits.

**HIS 499. Senior Seminar in History.** 3 credits. [WP]

## **International Studies Program**

International Studies is an interdisciplinary program designed to promote global citizenship and provide students with a core of knowledge and understanding of our interdependent world. Students will explore global issues and events from political, sociological, cultural, historical, and economic perspectives with the goal of developing the skills necessary for a career in public service, the private sector, and academia. It requires students to take an introductory course, advanced level foreign language, engage in undergraduate research or an internship, take a senior seminar course, and participate in a study abroad program.

International Studies majors and minors are required to participate in at least one approved off-campus program offered by the Study Abroad Office. This may include a semester of study abroad or an approved alternative program, such as exchange programs, mini-terms, short-term, or summer programs. Courses taken in off-campus programs can be accepted for credit to the International Studies major, but approval for such credit is contingent on equivalent courses in the catalog. For a list of approved off-campus programs, please see the study-abroad section.

Majors must also complete either an internship or research track:

- *Internship Track*: earn at least 6 internship credits. This can be accomplished with an international/foreign policy-related internship in the Washington Center program, in a study-abroad program, or in any other LVC-approved internship program (INT 400).
- *Research Track*: students can earn at least 6 credits of undergraduate research. This includes PSC 370 (Research Methods in Political Science) or SOC 311 (Research Methods in Sociology) and at least 3 credits of INT 460 (undergraduate research) in order to meet the requirements of the research component. INT 460 requires students to collaborate with a professor on a research project and is designed so students can hone their research skills in collecting, analyzing, and interpreting information. The purpose of the research option is to assure that students develop research methodologies in line with research objectives.

### *Degree Requirements:*

*Degree*: Bachelor of Arts with a major in international studies.

*Major with international affairs concentration*: INT 100, 499; ECN 101, 102; ECN 331 or 332; PSC 245; two courses in international politics: PSC 210, 211, 212, 213, 310, 312, 313, 380; two courses in global history: HIS 205, 206, 207, 208, 210, 212, 273, 274, 275, 303, 304, 305, 310, DSP 322; two advanced-level foreign language courses at the 300-level or above; completion of a study-abroad program and internship or research track, as described above (42 credits).

*Major with comparative culture concentration*: INT 100, 499; SOC 110, 120; PHL 110; REL 140; two courses on morality and values: PSC 345, DSP 352, PHL 210, 215, 270, 349, REL 251, 252, 253, 255; two courses on culture and society: ART 114, 312, 314, 318, 322, 324, 326, 334, 336, 338, 350, ENG 227, 228, 229, MSC 202, SOC 240; two advanced-level foreign language courses at the 300-level or above; completion of a study-abroad program and internship or research track, as described above (42 credits).

*Minor with international affairs concentration*: INT 100; ECN 101, 102, 332; PSC 245; and one elective from the following: PSC 210, 211, 212, 213, 310, 312, 313, 380, HIS 205, 206, 207, 208, 210, 212, 273, 274, 275, 303, 304, 305, 310, DSP 322; one advanced-level foreign language course at the 300-level or above; completion of a study- abroad program, as described above (21 credits).

*Minor with comparative culture concentration:* INT 100; SOC 110, 120; PHL 110; REL 140; and one elective from the following: PSC 345, DSP 352, PHL 210, 215, 270, 349, REL 251, 252, 253, 255, ART 114, 312, 314, 318, 322, 324, 326, 334, 336, 338, 350, ENG 227, 228, 229, MSC 202, SOC 240; one advanced-level foreign language course at the 300-level or above; completion of a study-abroad program, as described above (21 credits).

*Courses in International Studies:*

**INT 100. Introduction to International Studies.** 3 credits. [FS]

**INT 460. Undergraduate Research.** 1-3 credits.

**INT 499. Seminar in International Studies.** 3 credits. [WP]

## **Political Science Program**

Political scientists study government institutions and the political systems related to them. Students who major in political science take courses to give them a thorough understanding of the American political system, the political systems of other nations, and international politics. Twenty-four of the 39 credits in this major are taken in core requirements, and the remainder consist of elective credits chosen by students in accordance with their interests.

A degree in political science opens the door to a wide variety of careers. Political science majors have become lawyers, high school and junior high school teachers, college professors, journalists, law enforcement officers, business people, consultants, lobbyists, and government officials. The political science major is an integral component of the Pre-law, Criminal Justice, and Citizenship Education programs.

*Degree Requirements:*

*Degree:* Bachelor of Arts with a major in political science.

*Major:* ECN 101 or 102; PSC 100, 110, 210, 245, 345, 370, 498; five additional elective courses in political science (39 credits).

*Minor:* PSC 100, 110, 210, 245, 345 and one elective course in political science (18 credits).

## **Law and Society Minor**

The Political Science Department offers a law and society minor which can be taken alongside any major at LVC. The minor is an interdisciplinary program that introduces students to the American legal system through a study of the United States Constitution and its normative and political context. The program is expected to be of particular use to those students who intend to apply to law school. An internship and a capstone seminar in legal foundations are required for this minor.

*Minor:* PHL 120, PSC 316, PSC 400 (3 credits), PSC/PHL 417; one course from PSC/HIS 215, BUS 371, DCOM 230; one course from PHL/PSC 345, DSP 352, DSP 356, BUS 450 (18 credits).

*Courses in Political Science:*

**PSC 100. Introduction to Political Science.** 3 credits. [L2]

**PSC 110. American National Government.** 3 credits. [L2]  
**PSC 207. Europe in the 20th Century.** 3 credits. [L1, WP]  
**PSC 210. Comparative Politics.** 3 credits.  
**PSC 211. The Developing Nations.** 3 credits. [FS, WP]  
**PSC 212. Politics of Latin America.** 3 credits. [FS]  
**PSC 213. Politics of the Middle East.** 3 credits. [FS]  
**PSC 215. Law and Government.** 3 credits. [L2, WP]  
**PSC 230. Electing the President.** 3 credits.  
**PSC 245. International Relations.** 3 credits. [L2]  
**PSC 250. Public Policy Analysis.** 3 credits. [L2, WP]  
**PSC 255. Public Administration.** 3 credits.  
**PSC 261. Congress and the Presidency.** 3 credits.  
**PSC 312. American Foreign Policy.** 3 credits. [WP]  
**PSC 313. Contemporary Global Security.** 3 credits. [WP]  
**PSC 316. Civil Liberties and Civil Rights.** 3 credits. [SDS, WP]  
**PSC 330. State and Local Government.** 3 credits. [L2, WP]  
**PSC 345. Political Philosophy.** 3 credits. [DSP, WP]  
**PSC 370. Research Methods in Political Science.** 3 credits.  
**PSC 380. EU Simulation.** 3 credits. [DSP]  
**PSC 400. Internship.** 1-12 credits.  
**PSC 417. Seminar in Law.** 3 credits. [WP]  
**PSC 460. Undergraduate Research.** 1-3 credits.  
**PSC 498. Seminar in U.S. Politics.** 3 credits. [WP]

For additional information about these programs, including faculty and full course descriptions, please visit [www.lvc.edu/history-political-science](http://www.lvc.edu/history-political-science).

## DEPARTMENT OF LANGUAGES

Our programs have three broad goals: to develop communication skills in another language, to provide an understanding of the cultural heritage of the people who use that language, and to understand language as the fundamental medium by which humankind thinks and interacts.

The Department of Languages prepares its majors for a career in a variety of fields: teaching, diplomatic and government service, world trade, business, and social service. For many of these careers students combine the study of a language with a major in another discipline.

The department encourages students to take advantage of the College's opportunities for travel and study, particularly Lebanon Valley College programs in Berlin and Würzburg, Germany; Montpellier, France; Valladolid, Spain; Buenos Aires, Argentina; and Perugia, Italy.

The Department of Languages offers the major in French, German, and Spanish; secondary teacher certification in French, German, and Spanish; a minor in French, German, and Spanish; and Italian at the elementary level.

## Teacher Certification

In addition to majoring in a language, students seeking certification to teach a language must take and complete 33 credits in additional required coursework. See the Education Department section on page 52 for additional information.

### French Program

#### *Degree Requirements:*

*Degree:* Bachelor of Arts with a major in French.

*Major:* 27 credits in French above the intermediate level including FRN 340 and at least 6 credits of 400-level writing process courses.

*Minor:* 18 credits in French above the elementary level. Courses in advanced conversation and composition as well as in culture are strongly recommended.

Our program in Montpellier, France, is designed for students with varying abilities in French. This program is located at the University of Montpellier in southern France near the Mediterranean Sea. Students are placed in courses at a level appropriate to their skills. All courses are in French.

#### *Courses in French:*

**FRN 101. Elementary French I.** 3 credits. [FL]

**FRN 102. Elementary French II.** 3 credits. [FL]

**FRN 201. Intermediate French I.** 3 credits. [FL]

**FRN 202. Intermediate French II.** 3 credits. [FL]

**FRN 300. Advanced Conversation.** 3 credits.

**FRN 310. Advanced Grammar and Composition.** 3 credits.

**FRN 320. Business French.** 3 credits.

**FRN 340. The Sounds of French.** 3 credits.

**FRN 350. French Culture and Civilization.** 3 credits.

**FRN 360. Culture and Civilization of Francophone Countries.** 3 credits.

**FRN 410. French Literature of the Middle Ages and Renaissance.** 3 credits.

[L5, WP]

**FRN 420. French Literature of the 17th and the 18th Centuries.** 3 credits.

[L5, WP]

**FRN 430. French Literature of 19th Century.** 3 credits. [L5, WP]

**FRN 440. French Literature of the 20th and 21st Centuries.** 3 credits. [L5, WP]

**FRN 450. Modern Theater and Poetry of France.** 3 credits. [L5, WP]

### German Program

#### *Degree Requirements:*

*Degree:* Bachelor of Arts with a major in German.

*Major:* 27 credits in German above the intermediate level, including GMN 340 and at least 6 credits in 400 level writing process courses.

*Minor:* 18 credits in German above the elementary level. Courses in advanced conversation and composition as well as in culture are strongly recommended.

Our program in Berlin, Germany, allows students to complete 8 credits of intermediate or advanced German in one semester. Students also enroll in courses in German civilization taught in English. The program in Würzburg is an intensive, one-month program in the summer for 4 credits. Students must have completed the intermediate level as all instruction is in German.

*Courses in German:*

**GMN 101. Elementary German I.** 3 credits. [FL]

**GMN 102. Elementary German II.** 3 credits. [FL]

**GMN 201. Intermediate German I.** 3 credits. [FL]

**GMN 202. Intermediate German II.** 3 credits. [FL]

**GMN 300. Advanced Conversation.** 3 credits.

**GMN 301. Advanced Grammar and Composition.** 3 credits.

**GMN 305. Summer Study in Germany.** 4 credits. [FS]

**GMN 310. Germany Today.** 3 credits.

**GMN 320. Business German.** 3 credits.

**GMN 340. The Sounds of German.** 3 credits.

**GMN 350. German Culture and Civilization.** 3 credits.

**GMN 410. Readings in German.** 3 credits. [L5, WP]

**GMN 460. Lyric Poetry.** 3 credits. [L5, WP]

## **Italian Program**

The department offers elementary Italian on campus and elementary and intermediate Italian through our program in Perugia, Italy. Students study at the Umbra Institute, earn 6 credits in the Italian language and 9 credits through courses in Italian civilization and culture taught in English.

*Courses in Italian:*

**ITA 101. Elementary Italian I.** 3 credits. [FL]

**ITA 102. Elementary Italian II.** 3 credits. [FL]

## **Sanskrit Courses**

*Courses in Sanskrit:*

**SKT 101. Elementary Sanskrit I.** 3 credits. [FL]

**SKT 102. Elementary Sanskrit II.** 3 credits. [FL]

## **Spanish Program**

*Degree Requirements:*

*Degree:* Bachelor of Arts with a major in Spanish.

*Major:* 30 credits in Spanish above the intermediate level; at least 9 credits must be in 400-level writing process courses. At least 15 credits must be obtained at LVC. The 30 credits must include SPA 300, 310, 340, 350 and 360. Students may complete some of these core requirements in Spain.

*Minor:* 18 credits in Spanish above the elementary level. Courses in advanced conversation and composition as well as in culture are strongly recommended.

Our program in Spain is located in Valladolid, capital of the state of Castile-León. Students take courses at the advanced level in Spanish language, history, civilization, economics, and art at the Universitas Castellae, a private institute specializing in teaching university students from other countries. In Argentina, our program is offered in cooperation with the Fundación José Ortega y Gasset in Buenos Aires, which provides Spanish language courses at the beginning, intermediate, and advanced levels. Students may also enroll here in courses taught in English.

*Courses in Spanish:*

**SPA 101. Elementary Spanish I.** 3 credits. [FL]

**SPA 102. Elementary Spanish II.** 3 credits. [FL]

**SPA 201. Intermediate Spanish I.** 3 credits. [FL]

**SPA 202. Intermediate Spanish II.** 3 credits. [FL]

**SPA 300. Advanced Conversation.** 3 credits.

**SPA 310. Advanced Grammar and Composition.** 3 credits. [WP]

**SPA 320. Business Spanish.** 3 credits.

**SPA 340. The Sounds of Spanish.** 3 credits.

**SPA 350. Spanish Culture and Civilization.** 3 credits.

**SPA 360. Latin-American Cultures and Civilizations.** 3 credits. [FS]

**SPA 370. Techniques of Translation and Interpretation.** 3 credits.

**SPA 410. Spanish Literature of the Middle Ages and Renaissance.** 3 credits.

[L5, WP]

**SPA 420. Spanish Literature of the Golden Age.** 3 credits. [L5, WP]

**SPA 430. Spanish Literature of the 18th and 19th Centuries.** 3 credits. [L5, WP]

**SPA 440. Spanish Literature of the 20th and 21st Centuries.** 3 credits. [L5, WP]

**SPA 450. Latin-American Literature of the 20th and 21st Centuries.** 3 credits. [L5, WP]

**SPA 460. The Age of Discovery.** 3 credits. [FS, WP]

For additional information about these programs, including faculty and full course descriptions, please visit [www.lvc.edu/languages](http://www.lvc.edu/languages).

## DEPARTMENT OF MATHEMATICAL SCIENCES

The Lebanon Valley College Department of Mathematical Sciences has long offered a rigorous mathematics program within the context of a liberal arts education. The increasing national need for mathematically prepared individuals makes our program even more attractive today. Actuaries, computer programmers, mathematics and computer science teachers, operations research analysts, and statisticians are in high and continuing demand. In addition, the mental discipline and problem solving abilities developed in the study of mathematics are excellent preparation for numerous and varied areas of work and study.



The department was cited in the Mathematical Association of America's 1995 publication, *Models That Work*, for its exceptional program and for its service to students. It offers majors in actuarial science, computer science and mathematics; secondary teaching certification in mathematics; and minors in mathematics and computer science.

Departmental graduates have earned doctorates in economics, physics, statistics, and computer science as well as mathematics. Other graduates have completed law school. Many graduates have earned the designation of Fellow of the Society of Actuaries or of the Casualty Actuarial Society.

Mathematical Sciences Department majors are active in student government, athletics, musical organizations, and other activities. There is an active Math Club that annually sponsors a Quiz Bowl for local high school students and a Math Olympics for fifth graders.

The Mathematical Science Department also directs the computer engineering track in the 3+2 Engineering Program. For details, see Cooperative Programs on page 28.

## **Mathematics Program**

The Mathematics major is the cornerstone of the program in the Department of Mathematical Sciences. Each faculty member in the department has a doctorate in some area of mathematics. Operations research analyst, manager business analysis, computer analyst, and secondary school teacher are job descriptions of some recent graduates. Other graduates have chosen to use mathematics as preparation for graduate school in areas such as economics, management, operations research, and statistics, as well as mathematics.

### *Degree Requirements:*

*Degree:* Bachelor of Science with a major in mathematics.

*Major:* MAS 099, MAS 111, 112, 113, 114, 202, 222, 251, 261, plus five MAS courses numbered 200 or above, including at most one of MAS 266, 270 or ASC 385; at least four of MAS 311, 322, 325, 335, 371, 372, 390; and at least one of MAS 311 or 322. A 400 level ASC course may substitute for 335 and ASC 385 may substitute for MAS 266 or MAS 270 (37 credits).

Mathematics majors are advised to take at least one computer science course or have equivalent experience.

*Minor:* MAS 161 and 162 or MAS 111 and 112; MAS 222, and either MAS 251 or 202; three courses from CSC 131 or MAS courses numbered 200 or higher. One ASC course may be substituted for one of the elective 200 or higher level math courses. (21 credits)

*Secondary Teacher Certification:* Students seeking secondary certification in mathematics must complete: a mathematics major including MAS 270 or MAS 372; MAS 322, 325; and CSC 131. Certification candidates must also complete 33 credits in additional required coursework. See the Education Department section on page 52 for additional information.

### *Courses in Mathematics:*

**MAS 099. Presentation Attendance.** 0 credits.

**MAS 100. Concepts of Mathematics.** 3 credits. [L4]

**MAS 102. Pre-Calculus.** 3 credits.

**MAS 111. Analysis I.** 4 credits. [L4]

**MAS 112. Analysis II.** 4 credits. [L4]

**MAS 113. Introduction to Mathematical Thinking I.** 1 credit.

**MAS 114. Introduction to Mathematical Thinking II.** 1 credit.

**MAS 150. Finite Mathematics.** 3 credits. [L4]

**MAS 161. Calculus I.** 3 credits. [L4]

**MAS 162. Calculus II.** 3 credits. [L4]

**MAS 170. Elementary Statistics.** 3 credits. [L4]

**MAS 202. Foundations of Mathematics.** 3 credits.

**MAS 222. Linear Algebra.** 3 credits.

**MAS 251. Discrete Mathematics.** 3 credits.

**MAS 261. Calculus III.** 3 credits.

**MAS 266. Differential Equations.** 3 credits.

**MAS 270. Intermediate Statistics.** 3 credits. [L4]

**MAS 311. Real Analysis.** 3 credits.

**MAS 322. Abstract Algebra.** 3 credits.

**MAS 325. Geometry.** 3 credits.

**MAS 335. Operations Research.** 3 credits.

**MAS 371. Mathematical Probability.** 3 credits.

**MAS 372. Mathematical Statistics.** 3 credits.

## **Actuarial Science Program**

Actuaries are business professionals who use expertise in mathematics, economics, finance and management to define, analyze and solve financial and social problems. Actuaries are employed by insurance companies, consulting firms, pension/benefit consulting firms, large corporations, and federal and state government agencies. Actuarial credentials, which are earned after obtaining a bachelor's degree, result from completing the rigorous education and examination program administered by either the Casualty Actuarial Society or the Society of Actuaries.

The Actuarial Science Program at Lebanon Valley College was established in the 1960s and is coordinated by Professor Hearsey, who is an Associate of the Society of Actuaries. With over 120 graduates working in the profession, including 62 fellows and 36 associates, Lebanon Valley is recognized as having one of the leading undergraduate actuarial education programs in the U.S.

The College's actuarial curriculum is designed to help actuarial students prepare for the curricula of the professional actuarial societies including all 2005 and 2006 revisions. The program introduces students to material on the first four examinations in the Society of Actuaries and Casualty Actuarial Society examination programs.

The rigorous standards of the program, including the required passing of at least one actuarial examination, has resulted in a nearly 100 percent placement record

of Lebanon Valley College actuarial science graduates in professional actuarial positions.

*Degree Requirements:*

*Degree:* Bachelor of Science degree with a major in actuarial science.

*Major:* ASC 281, 385, and two from 386, 472, 481, 482; CSC 131; MAS 111, 112, 113, 114, 202, 261, 371, 372; ECN 101, 102; ACT 161 (49 credits). The Course P/Part 1 or Course FM/Part 2 examination of the Society of Actuaries/Casualty Actuarial Society must be passed before senior standing is reached.

*Courses in Actuarial Science:*

**ASC 281. Probability for Risk Management.** 3 credits.

**ASC 385. Mathematics of Finance I.** 3 credits.

**ASC 386. Mathematics of Finance II.** 3 credits.

**ASC 472. Loss Distributions and Credibility Theory.** 3 credits.

**ASC 481. Actuarial Mathematics I.** 3 credits.

**ASC 482. Actuarial Mathematics II.** 3 credits

## Computer Science Program

Computer science is the study of what can be done with machines. This discipline is part mathematics, part engineering, part philosophy, part linguistics, and part experimental science (without all the mess).

Our computer science curriculum is distinguished primarily by two characteristics. The first is our emphasis on computer programming. The first six CS courses are primarily about programming, and programming plays an important role in most of the advanced courses. This emphasis develops strong analysis and problem-solving skills.

The second characteristic of the computer science major is its decidedly mathematical nature. Our students take 19 credits of mathematics (seven courses), more than is typical of undergraduate CS programs. This math foundation gives our students an analytical background that applies broadly in their CS coursework, helping them become better programmers and analysts.

*Degree Requirements:*

*Degree:* Bachelor of Science with a major in computer science.

*Major:* CSC 131, 132, 231, 232, 331, 332; two of 441, 442, 448, 451, 452, 481, 482; either 400 or 500; MAS 111, 112, 113, 114, 222, 251, plus one additional MAS course numbered 200 or higher; BUS 285 (49 credits).

*Minor:* CSC 131, 132, 231, 232, and one CSC course numbered 300 or above; MAS 111 or 161, and MAS 112 or 162 or 270 (21 credits).

*Courses in Computer Science:*

**CSC 115. Programming for Applications.** 3 credits.

**CSC 131. Introduction to Programming (with Java).** 3 credits.

**CSC 132. Computer Organization and Programming.** 3 credits.

**CSC 216. Concepts of Networking and Database.** 3 credits.

**CSC 231. Program Design I: C++ and Data Structures.** 3 credits.

**CSC 232. Program Design II: OOP and Patterns.** 3 credits.

**CSC 331. Software Design I.** 3 credits.

**CSC 332. Software Design II.** 3 credits.

**CSC 441. Operating Systems.** 3 credits.

**CSC 442. Networks.** 3 credits.

**CSC 448. Databases.** 3 credits.

**CSC 452. Artificial Intelligence.** 3 credits.

**CSC 481. Advanced Topics in Computer Science I.** 3 credits.

**CSC 482. Advanced Topics in Computer Science II.** 3 credits.

For additional information about these programs, including faculty and full course descriptions, please visit [www.lvc.edu/mathematics](http://www.lvc.edu/mathematics).

## **MILITARY SCIENCE PROGRAM ROTC**

The Military Science Program/ROTC adds another dimension to a Lebanon Valley College liberal arts education with courses that focus on helping students to become leaders and which develop a student's ability to manage, motivate, and foster teamwork. ROTC cadets cannot be called to active duty until they graduate and have been commissioned.

Students can participate in the military science courses (the ROTC Basic Course) during their freshman and sophomore years without formally enrolling in ROTC and with no future military obligation or commitment required. Courses during these years orient students to the various roles of Army officers and begin to prepare students to become officers. These courses focus on the development of written and oral communication skills, leadership skills, and self-confidence.

Individuals who elect to continue in the program during the junior and senior years (the ROTC Advanced Course) will receive a commission as a second lieutenant in the U.S. Army, the U.S. Army Reserve, or the Army National Guard upon graduation. They will then serve either four years of active duty in the Army, or they may opt to serve part-time in the Army Reserve or National Guard if they choose to pursue a civilian career. Students can enroll in ROTC as late as the end of their sophomore year and still receive two years of ROTC scholarship.

Army ROTC participation generally involves taking one elective class per semester. Options are available for those individuals who encounter scheduling conflicts or who desire to begin participation after their freshman year.

Contact the Military Science Department, 717-245-1221 or 717-871-5900, or go to [www.goarmy.com/rotc/](http://www.goarmy.com/rotc/) for further information. At this time, the course instruction for Lebanon Valley College students is held at Millersville University.

Program participants may take part in various enrichment activities during the

academic year, which include rappelling, rifle qualification, leadership exercises, land navigation, orientation trips, and formal social functions. Program participants may also apply for special training courses during the summer, such as airborne school, air assault schools, and cadet troop leader training.

*Scholarships:* Army ROTC offers four-, three-, and two- year scholarships, awarded to those with a high school GPA of at least a 2.50 and a minimum of 920 on the SAT (math/verbal) or 19 on the ACT. Scholarships are highly and competitive and extremely limited, but the scholarship pays full tuition and fees each year. In addition, contracted Cadets (having signed an oath with The Army) receive stipend of \$300–500 a month, depending on year in school, plus \$1,200 a year for books. All scholarship recipients remain eligible for financial aid.

*Corresponding Studies Program:* Students may spend a semester in an off-campus study program in either the United States or abroad, while participating in either the Army ROTC Basic Course or Advanced Course, and still receive the same course credit, scholarships, and benefits. Additionally, many Cultural Internship Programs are available to ROTC Cadets independent of the college they attend.

*Leader Development and Assessment Course (LDAC):* This practicum consists of a five-week summer training program at Fort Lewis, Washington. LDAC stresses the application of military skills to rapidly changing situations. Participants are evaluated on their ability to make sound decisions, to direct group efforts toward the accomplishment of common goals, and to meet the mental and physical challenges presented to them. Completion of LDAC is required prior to commissioning and is normally attended during the summer between the junior and senior years. Participants receive room, board, travel expenses, medical care, and pay.

## DEPARTMENT OF MUSIC

Students in the Department of Music major in one of four areas: music, music business, music education, or music recording technology. Each student in the B.A. (MUS or MBS), B.M. (MRT), or B.S. (MED) programs is required to take a core of courses in music theory and music history. Each student also completes additional course work particular to his or her area of interest.

### Music Program

Music majors will exhibit proficiency at the piano and in voice. To achieve these proficiencies, students take MSC 510, 511, 512, and 513, and/or 520. Precise requirements for the proficiencies and the recital attendance requirement are found in the Department of Music Student Handbook, and in the courses-in-music section of this catalog. Music majors (except music business students) will be in at least one major ensemble (identified as Marching Band, Symphonic Band, College Choir, Concert Choir, or Symphony Orchestra) each fall and spring semester. All students may earn up to 12 credits for ensemble participation. They will enroll in private study on their principal instrument/voice during each fall and spring semester.

Students registered for private instruction in the department are not permitted to study in that instructional area on a private basis with another instructor, on or off campus, at the same time.

### *Degree Requirements:*

The Bachelor of Arts in music (B.A.) is designed for those students preparing for a career in music with a strong liberal arts background. Students in the jazz studies concentration will take 530 private applied each semester. They will also take at least three credits of 530 jazz studies starting in the junior year. The theory or composition concentration students will take 530 private applied each semester. Theory concentration students will take at least one 530 individual instruction theory credit in the senior year. Composition concentration students will take at least four credits of 530 individual instruction composition starting no later than the junior year. Concentrations identified in the Department of Music Student Handbook include: piano, organ, voice, instrumental, sacred music, jazz studies, theory or composition.

*Degree:* Bachelor of Arts in music.

*Majors:* Core courses in three of the music degree programs are: MSC 099, 115, 116, 117, 118, 215, 216, 217, 241, 242, and 246. MSC 530 for all degree candidates. In addition, music majors will be in either MSC 601, 602, 603, 604, or 606 each semester, exceptions noted previously.

*Music (B.A.):* Core courses plus: Piano concentration: MSC 306, 316, 406 and 600; Voice concentration: MSC 233, 326 and 327; Organ concentration: MSC 316, 351, and 352; Instrumental concentration: MSC 345, 403, 405 and 416; Sacred Music concentration: MSC 347, 351 or MED 334, and 422; Jazz Studies concentration: MSC 201, 218, 416 and 530 jazz studies (at least three semesters); Theory concentration: MSC 216, 315, 329, 416 and 530 individual instruction theory (at least the final semester); Composition concentration MSC 216, 315, 329, 416, and 530 individual instruction composition (at least four semesters).

*Minor:* MSC 099 (two semesters), 101, and three music literature courses from among the following: 100, 201, 202, 241, 242, or 343. Minors also take MSC 530 for four semesters and must participate in any music ensemble for four semesters.

### *Student Recitals*

Student recitals are of inestimable value to all music students in acquainting them with a wide range of significant music literature, and in developing musical taste and discrimination. Performing in a recital provides the experience of appearing before an audience, and helps to develop self reliance and confident stage demeanor. Students at all levels of performance ability appear on regularly scheduled student recitals depending on their performance readiness, and in consultation with the private teacher.

### *Courses in Music:*

**MSC 088. Piano Proficiency.** 0 credits.

**MSC 089. Voice Proficiency.** 0 credits.

**MSC 099. Recital Attendance.** 0 credits.  
**MSC 100. Introduction to Music.** 3 credits. [L5]  
**MSC 101. Fundamentals of Music.** 3 credits. [L5]  
**MSC 111. Class Guitar for Beginners.** 1 credit.  
**MSC 115. Music Theory I.** 2 credits.  
**MSC 116. Music Theory II.** 2 credits.  
**MSC 117. Aural Theory I.** 2 credits.  
**MSC 118. Aural Theory II.** 2 credits.  
**MSC 201. Music of the United States.** 3 credits. [L5, WP]  
**MSC 202. World Musics.** 3 credits. [FS]  
**MSC 215. Music Theory III.** 2 credits.  
**MSC 216. Music Theory IV.** 2 credits.  
**MSC 217. Aural Theory III.** 2 credits.  
**MSC 218. Jazz Theory.** 2 credits.  
**MSC 233. Diction.** 2 credits.  
**MSC 241. History and Literature of Music I.** 3 credits.  
**MSC 242. History and Literature of Music II.** 3 credits. [L5]  
**MSC 246. Principles of Conducting.** 2 credits.  
**MSC 306. Piano Literature.** 2 credits.  
**MSC 315. Counterpoint.** 2 credits.  
**MSC 316. Keyboard Harmony.** 2 credits.  
**MSC 326. Vocal Literature.** 2 credits.  
**MSC 327. Vocal Pedagogy.** 2 credits.  
**MSC 329. Advanced Form and Analysis.** 2 credits.  
**MSC 343. 20th Century Music.** 3 credits. [L5]  
**MSC 345. Advanced Instrumental Conducting.** 2 credits.  
**MSC 347. Advanced Choral Conducting.** 2 credits.  
**MSC 351. Organ Literature.** 2 credits.  
**MSC 352. Organ Pedagogy.** 2 credits.  
**MSC 403. Instrumental Pedagogy.** 2 credits.  
**MSC 405. Instrumental Literature.** 2 credits.  
**MSC 406. Piano Pedagogy.** 2 credits.  
**MSC 416. Orchestration.** 2 credits.  
**MSC 422. Church Music Methods and Administration.** 3 credits.  
**MSC 510. Class Piano Instruction I.** 1 credit.  
**MSC 511. Class Piano Instruction II.** 1 credit.  
**MSC 512. Class Piano Instruction III.** 1 credit.  
**MSC 513. Class Piano Instruction IV.** 1 credit.  
**MSC 520. Class Voice Instruction.** 1 credit.  
**MSC 530. Individual Instruction.** 1 credit.  
**MSC 540. Individual Instruction.** 2 credits.  
**MSC 600. Accompanying.** 1-2 credits.

### *Music Ensembles*

**MSC 601. Marching Band.** 1 credit.  
**MSC 602. Symphonic Band.** 1 credit.

**MSC 603. Symphony Orchestra.** 1 credit.

**MSC 604. Concert Choir.** 1 credit.

**MSC 605. Chamber Choir.** 1/2 credit.

**MSC 606. College Choir.** 1 credit.

*Woodwind Ensembles*

**610. Clarinet Choir.** 1/2 credit.

**611. Flute Ensemble.** 1/2 credit.

**612. Saxophone Ensemble.** 1/2 credit.

**613. Woodwind Quintet.** 1/2 credit.

*Brass Ensembles.*

**614. Low Brass Ensemble.** 1/2 credit.

**615. Trumpet Ensemble.** 1/2 credit

**616. Percussion Ensemble.** 1/2 credit.

**620. String Ensemble.** 1/2 credit.

*Jazz Ensembles.*

**625. Jazz Band.** 1/2 credit.

**626. Small Jazz Ensemble.** 1/2 credit.

*Chamber Ensembles.*

**630. Guitar Ensemble.** 1/2 credit.

**635. Handbell Choir.** 1/2 credit.

## **Music Business Program**

The Bachelor of Arts: emphasis in music business (B.A.) is a liberal arts-based music business curriculum that builds on the strengths of current programs in business and music.

*Degree Requirements:*

*Degree:* Bachelor of Arts: emphasis in music business (MBS).

*Music Business (B.A.):* MSC 099 (8 semesters); 115, 116, 117, 118, 201, 241, 242, 510, 511, 512, 513, 520 (1 semester, or voice proficiency), 530 (8 semesters), any music ensemble (8 semesters); MBS 179 (4 semesters), 371, 372, 373, 400; ACT 161, 162; BUS 230, 285, 371; BUS 340 or DCOM 265 (pending approval); and ECN 101 or 102.

*Courses in Music Business:*

**MBS 179. Music Business Colloquium.** 1 credit.

**MBS 371. Introduction to the Music Business.** 3 credits. [WP]

**MBS 372. Music Copyright, Contracts and Cash.** 3 credits.

**MBS 373. Music Industry Entrepreneurship.** 3 credits.

**MBS 400. Internship.** 3-12 credits.



## Music Education Program

The Bachelor of Science in music education (B.S.), approved by the Pennsylvania Department of Education and accredited by the National Association of Schools of Music, is designed for the preparation of public school music teachers, pre-kindergarten through grade 12, instrumental and vocal music. Piano and voice proficiencies for the music education major prepare the candidate to meet the standards of the Pennsylvania Department of Education and are administered by competency jury. Students participate in student teaching in area elementary and secondary schools. In all field experiences, as well as the student teaching semester, each student is responsible for transportation arrangements. During the student teaching semester, the candidate is not required to register for recital attendance, private lessons, or an ensemble.

### *Degree Requirements:*

*Degree:* Bachelor of Science in music education (MED).

*Music Education (B.S.):* Core courses plus: MED 110, 223, 227, 330, 331, 333, 334, 335, 337, 437, 441, 442; MSC 316; 345 or 347; 416; EDU 240 or 245, SPE 250, 255, and 258; two college-level mathematics courses and one American or English literature course; and a 3.00 cumulative grade point average. Music education majors are permitted to register for only one half-hour lesson in their principle performance medium during the student teaching semester if they are preparing a recital. This is accomplished by petition.

### *Courses in Music Education:*

**MED 110. Foundations of Music Education.** 3 credits.

**MED 223. Brass Techniques.** 2 credits.

**MED 227. Percussion Techniques.** 1 credit.

**MED 280. Field Practicum in Music Education.** 1-3 credits.

**MED 330. Woodwind Techniques.** 2 credits.

**MED 331. String Techniques.** 2 credits.

**MED 333. Methods and Materials, General Music: Elementary.** 3 credits.

**MED 334. Choral Literature and Methods.** 3 credits. [WP]

**MED 335. Instrumental Literature and Methods.** 3 credits.

**MED 336. Music Ed. Field Practicum.** 1 credit.

**MED 337. Music Teaching and Learning I.** 2 credits.

**MED 437. Music Teaching and Learning II.** 2 credits.

**MED 441. Student Teaching: Instrumental.** 4-8 credits.

**MED 442. Student Teaching: Vocal.** 4-8 credits.

## Music Recording Technology Program

The Bachelor of Music: emphasis in music recording technology (B.M.) is designed to prepare students for today's rapidly developing interactive media and music recording industries.

### *Degree Requirements:*

*Degree:* Bachelor of Music: emphasis in music recording technology (MRT).

*Music Recording Technology (B.M.):* Core courses plus: MRT 177, 277, 278, 373, 374, 377, 379, 400, 473, 474; MBS 371; PHY 101, 102, 212, 350; MAS 102 (or MAS 161).

*Courses in Music Recording Technology:*

**MRT 177. The Recording Industry.** 1 credit.

**MRT 277. Recording Engineering I.** 3 credits.

**MRT 278. Recording Engineering II.** 3 credits.

**MRT 373. Electronic Music.** 3 credits.

**MRT 374. Digital Audio.** 3 credits.

**MRT 377. Mastering Audio.** 3 credits.

**MRT 379. Tonmeister Recording.** 1 credit.

**MRT 400. Internship.** 3-12 credits.

**MRT 473. Architectural Acoustics.** 3 credits.

**MRT 474. Music Production Seminar.** 3 credits.

**MRT 475. Musical Frontiers.** 3 credits.

For additional information about these programs, including faculty and full course descriptions, please visit [www.lvc.edu/music](http://www.lvc.edu/music).

## DEPARTMENT OF PHYSICAL THERAPY

### Health Science Program

This curriculum shall only be completed by students enrolled in the six-year Doctor of Physical Therapy (DPT) program. At the end of four years of study, students enrolled in the DPT program will receive a Bachelor of Science in health science. In order to proceed into the professional phase of the DPT program, students must maintain: (1) a minimum cumulative 3.0 GPA in all coursework; (2) a minimum cumulative science GPA of 2.5 (the required biology, chemistry, physics, anatomy, and physiology courses), and (3) no individual science grade lower than a C (2.0). Science courses may be repeated only once to meet the GPA requirement. All required courses must be taken for a grade. Only one science course can be transferred in from another institution (excluding study abroad). The grade from this course must be a “C” (2.0) or better to satisfy program requirements. Departmental students not meeting the GPA requirements at the end of the third year may complete their senior or fourth-year requirements and graduate with the health science degree but may not continue into the professional (graduate) phase.

Required pre-professional course work includes completion of the general education program and major requirements including 18 credit hours in a cognate discipline or minor of choice. In fulfilling the cognate requirement, students must take at least two courses at the 300-level or higher.

Doctor of Physical Therapy degree requirements can be found on page 94. All students will complete a comprehensive criminal background check during the first professional phase year.

*Lebanon Valley College's Doctor of Physical Therapy Degree Program is accredited by the Commission on Accreditation in Physical Therapy Education.*

***Degree Requirements:***

***Degree:*** Bachelor of Science with a major in health science.

***Major:*** BIO 111, 112, 113, 114, 222; CHM 111, 112, 113, 114; PHY 103/105, 104/106; MAS 170 or 270, or PSY 212; PSY 111 or 112; SOC 110 or 120; PHT 311, and a choice of PHT 412 or SOC 324. (44 total credits.)

No minor is offered in health science.

All courses are limited to students enrolled in the health science-DPT track with the exception of PHT 412.

***Courses in Health Science:***

**PHT 311. Fundamentals of Anatomy.** 4 credits.

**PHT 412. Psychosocial Aspects of Disease and Disability.** 3 credits. [DSP]

**PHT 502. Professional Issues of Physical Therapy Practice I.** 3 credits.

**PHT 504. Professional Issues of Physical Therapy Practice II.** 4 credits.

**PHT 511. Human Anatomy.** 5 credits.

**PHT 514. Pathophysiology.** 4 credits.

**PHT 516. Biomechanics and Kinesiology.** 4 credits.

**PHT 518. Exercise Science.** 3 credits.

**PHT 520. Motor Control Motor Learning.** 2 credits.

**PHT 532. Clinical Examination.** 4 credits.

**PHT 534. Cardiovascular-Pulmonary Physical Therapy.** 4 credits.

**PHT 542. Pharmacology in Rehabilitation.** 2 credits.

**PHT 550. Evidence Based/Critical Inquiry Physical Therapy I.** 2 credits.

**PHT 560. Clinical Education and Practice I.** 1 credit.

**PHT 595. Student Run Free Clinic I.** 0 credits.

**PHT 596. Student Run Free Clinic II.** 0 credits.

For additional information about this program, including faculty and full course descriptions, please visit [www.lvc.edu/physical-therapy](http://www.lvc.edu/physical-therapy).

## **DEPARTMENT OF PHYSICS**

### **Physics Program**

Physics, the most fundamental science of the physical world, combines the excitement of experimental discovery and the beauty of mathematics. The program in physics at Lebanon Valley College is designed to develop an understanding of the fundamental laws dealing with motion, force, energy, heat, light, electricity and magnetism, atomic and nuclear structure, and the properties of matter.

Students major in physics as a preparation for professional careers in industry as physicists and engineers, and education as high school and college teachers. Other possibilities include technical writing, sales and marketing. Physics students can continue their professional training by going to graduate school in physics and

engineering, or to other professional schools offering degrees in such fields as health physics and business.

The facilities of the Physics Department are located on the second floor of the Neidig-Garber Science Center. In addition to the introductory physics laboratories, the department maintains an atomic/nuclear laboratory, computational physics laboratory, electronics laboratory, optics laboratory, atomic force microscope laboratory, and student research laboratory.

Students majoring in physics take advantage of close contact with faculty, work as paid laboratory assistants, pursue independent study or research/internships, and participate in the local chapter of the Society of Physics Students. Summer research opportunities, supported by college funds or external grants, are available for physics students.

The requirements for the physics major, like other majors at LVC, are designed so students can study abroad for one semester (typically in their junior or senior year). Hence, students can combine their study of physics with the richness of an international experience by participating in any college-wide study-abroad program (e.g., New Zealand Program).

The Physics Department also directs the 3+2 Engineering Program. For details, see Cooperative Programs, page 28.

### *Degree Requirements:*

*Degree:* Bachelor of Science with a major in physics.

*Major:* PHY 111, 112, (or 101, 102 or 103/105, 104/106 with permission), 211, 311, 312, 321, 322, 327, 328 and four additional semester hours above 211; MAS 161, 162, 261 and 266 or MAS 111, 112, 261 and 266 (43–47 credits).

*Minor:* PHY 111, 112 (or 101, 102 or 103/105, 104/106), 211, plus 6 credits in physics above 211; MAS 111 or 161 (21–23 credits).

*Secondary Teacher Certification:* Along with the major requirements, students seeking secondary certification in physics must take either BIO 111/113 or BIO 103, and CHM 111/113. Certification candidates must also complete 33 credits in additional required coursework. See the Education Department section on pages 52 for additional information.

### *Courses in Physics:*

**PHY 100. Physics and Its Impact.** 4 credits. [L3]

**PHY 101. Fundamentals of Physics I.** 4 credits. [L3]

**PHY 102. Fundamentals of Physics II.** 4 credits. [L3]

**PHY 103. General College Physics I.** 3 credits. [L3]

**PHY 104. General College Physics II.** 3 credits. [L3]

**PHY 105. General College Physics I Laboratory.** 1 credit. [L3]

**PHY 106. General College Physics II Laboratory.** 1 credit. [L3]

**PHY 111. Principles of Physics I.** 4 credits. [L3]

**PHY 112. Principles of Physics II.** 4 credits. [L3]

**PHY 120. Principles of Astronomy.** 4 credits. [L3]

**PHY 211. Atomic and Nuclear Physics.** 4 credits.

**PHY 212. Introduction to Electronics.** 4 credits.  
**PHY 261. Introduction to Computational Physics.** 3 credits.  
**PHY 302. Optics.** 3 credits.  
**PHY 304. Thermodynamics.** 3 credits.  
**PHY 311. Analytical Mechanics I.** 3 credits.  
**PHY 312. Analytical Mechanics II.** 3 credits.  
**PHY 321. Electricity and Magnetism I.** 3 credits.  
**PHY 322. Electricity and Magnetism II.** 3 credits.  
**PHY 327. Experimental Physics I.** 1 credit.  
**PHY 328. Experimental Physics II.** 2 credits. [WP]  
**PHY 350. Audio Electronics.** 3 credits.  
**PHY 421. Quantum Mechanics I.** 3 credits.  
**PHY 422. Quantum Mechanics II.** 3 credits.

For additional information about this program, including faculty and full course descriptions, please visit [www.lvc.edu/physics](http://www.lvc.edu/physics).

## DEPARTMENT OF PSYCHOLOGY

The Psychology Department at Lebanon Valley College seeks to foster an understanding of human behavior that is built on a scientific foundation and is applied to real world phenomena and problems. Our curriculum is a student-oriented, liberal arts program that prepares students, following graduation, for applied entry positions in the work force, or for graduate studies in a range of areas such as psychology, neuroscience, social work, medicine, business, education, and law. The program allows our students to become psychologically literate individuals who can (a) attain significant professional accomplishments within the field, and also (b) apply their knowledge towards understanding and shaping behavior-related public policies, critically analyzing media-based coverage of psychological topics, and enhancing various elements of their own and others' lives. This approach is consistent with the mission of the College, which is to enable "students to become people of broad vision, capable of making informed decisions and prepared for a life of service to others."

The department offers students the benefits of a strong classroom-based traditional background in the core subdisciplines of psychology, along with providing opportunities to become involved in the field of psychology in an applied manner. Many psychology majors gain practical knowledge through (a) participation in independent and collaborative research projects under the guidance and supervision of individual faculty members, as well as (b) our extensive internship program, which allows students to receive college credit for work experience relevant to their particular interests within the field of psychology. Overall, the Department of Psychology at Lebanon Valley College offers the "best of both worlds": experiences and facilities usually associated only with larger universities, along with individualized instruction and advisement characteristic of small liberal arts institutions.

## Psychology Program

The psychology program requires all majors to complete a minimum of 46 credits of psychology coursework. All majors initially complete several foundation courses, which include introductions to a vast array of subfields within psychology, as well as laboratory-based exposure to the nature of research design and analysis. Students then complete courses within each of five critical psychological subdisciplines (human development, psychopathology, biopsychology, cognition, and social processes), which include additional, advanced, lab-based research. Finally, all majors complete an integrative capstone experience, which includes coursework surveying the history of psychology, as well as the completion of an individualized internship or research project.

### *Degree Requirements:*

*Degree:* Bachelor of Science with a major in psychology.

*Major:* PSY 111, 112, 201, 211, 212, 310, and 443; one course from 325, 333, 347, 364, or 379; one course from 400 or 410; an additional 6 PSY credits. Students must also complete one course from each of the following five core areas: biopsychology: 280, 285, 378; cognition: 250, 252, 260, 363; human development: 230, 235, 324; social processes: 240, 245, 247, 255, 346; psychopathology: 265, 268, 270, 332. (46 credits).

*Minor:* PSY 111, 112, 211 and 212; 6 credits at the 200-level or higher; 3 credits at the 300-level. (24 credits).

### *Courses in Psychology:*

**PSY 111. General Psychology I.** 4 credits. [L3]

**PSY 112. General Psychology II.** 3 credits.

**PSY 180. Child Development and Education.** 3 credits.

**PSY 201. Sophomore Seminar.** 1 credit.

**PSY 211. Research Methods in Psychology.** 4 credits. [WP]

**PSY 212. Statistics and Data Analysis.** 4 credits.

**PSY 230. Psychology of Adolescent Development.** 3 credits.

**PSY 235. Psychology of Adult Development and Aging.** 3 credits.

**PSY 245. Personality.** 3 credits. [WP]

**PSY 247. Psychological Perspectives on Gender.** 3 credits. [SDS]

**PSY 248. Health Psychology/Behavioral Medicine.** 3 credits.

**PSY 250. Sensory and Perceptual Processes.** 3 credits.

**PSY 252. The Science of Emotion.** 3 credits.

**PSY 255. Evolutionary Psychology.** 3 credits.

**PSY 260. Learning and Memory.** 3 credits.

**PSY 265. Abnormal Behavior and Experience.** 3 credits.

**PSY 268. Introduction to Clinical Psychology.** 3 credits.

**PSY 270. Forensic Psychology.** 3 credits.

**PSY 280. Introduction to Neuropsychology.** 3 credits.

**PSY 285. Introduction to Psychopharmacology.** 3 credits.  
**PSY 310. Advanced Research Design.** 2 credits.  
**PSY 324. Psychology of Child Development.** 3 credits.  
**PSY 325. Child Development Laboratory.** 1 credit.  
**PSY 332. Psychological Testing and Assessment.** 3 credits.  
**PSY 333. Psychological Testing and Assessment Laboratory.** 1 credit.  
**PSY 346. Social Psychology.** 3 credits.  
**PSY 347. Social Psychology Laboratory.** 1 credit.  
**PSY 363. Cognitive Science.** 3 credits.  
**PSY 364. Cognitive Science Laboratory.** 1 credit.  
**PSY 378. Behavioral Neuroscience.** 3 credits.  
**PSY 379. Behavioral Neuroscience Lab.** 1 credit.  
**PSY 400. Internship.** 1-12 credits.  
**PSY 410. Independent Laboratory Research.** 3 credits.  
**PSY 443. History and Theory.** 3 credits. [WP]

For additional information about this program, including faculty and full course descriptions, please visit [www.lvc.edu/psychology](http://www.lvc.edu/psychology).

## DEPARTMENT OF RELIGION AND PHILOSOPHY

Many majors in religion or philosophy go on to advanced study in graduate or professional schools and seminaries. Our graduates have pursued a wide variety of careers in education, law, ministry and business. A major in religion or philosophy may be combined with a major or minor in another subject.

### Religion Program

The study of religion is designed to give students insight into the meaning of the religious dimension of human experience by exposing them to different cultural beliefs and practices and introducing them to the many methodologies in the comparative study of religion. Course work in religion introduces students to the various historical and contemporary expressions of the diverse religious traditions of humankind. The breadth of courses required by the major and minor are designed to impart upon the student a basic religious literacy, which is key to understanding an increasingly diverse world.

#### *Degree Requirements:*

*Degree:* Bachelor of Arts with a major in religion.

*Major:* REL 140, 280, 499; one course from 200, 202, or 204; one course from 252, 253, or 255; one course from 250, or 251; and four additional courses in religion, of which at least one must be in the 300-level. Total: 10 courses (30 credits).

*Minor:* REL 140, 280; one course from 200, 202, or 204; one course from 252, 253, or 255; one course from 250, or 251; and one additional course in religion.



Total: 6 courses (18 credits).

Note: To be credited for majors or minors in religion, cross-listed courses must be designated as religion courses at registration.

*Courses in Religion:*

- REL 110. Introduction to Religion.** 3 credits. [L6]
- REL 120. Religion in America.** 3 credits. [SDS]
- REL 140. Encountering World Religions.** 3 credits. [FS]
- REL 200. Comparative Scripture.** 3 credits. [FS]
- REL 202. Jewish and Christian Scripture.** 3 credits. [L6]
- REL 204. Hindu Scripture.** 3 credits. [FS]
- REL 230. Philosophy of Religion.** 3 credits. [L6, WP]
- REL 250. Christianity.** 3 credits. [DSP]
- REL 251. Judaism.** 3 credits. [L6]
- REL 252. Hinduism.** 3 credits. [FS]
- REL 253. Buddhism.** 3 credits. [FS]
- REL 255. Islam.** 3 credits. [FS]
- REL 280. Method and Theory in Religion.** 3 credits. [WP]
- REL 311. Key Issues in Religion.** 3 credits. [WP]
- REL 313. The Search for Jesus.** 3 credits. [DSP, WP]
- REL 314. Death, Dying, and Beyond.** 3 credits. [DSP]
- REL 340. One Nation Under God?** 3 credits. [L1]
- REL 499. Senior Seminar.** 3 credits. [WP]

*Courses in Sanskrit (SKT):*

- SKT 101. Elementary Sanskrit I.** 3 credits. [FL]
- SKT 102. Elementary Sanskrit II.** 3 credits. [FL]

## **Philosophy Program**

The study of philosophy directly involves the student in the process of sharpening critical and analytical abilities. Philosophy courses examine some of the greatest perennial questions of values, knowledge, and reality and their relation to human nature.

*Degree Requirements:*

*Degree:* Bachelor of Arts with a major in philosophy.

*Major:* PHL 120, 210, 301 and 311; REL 252 or 253; 2 courses listed as PHL 270 (seminar in the history of philosophy); PHL 499; at least 2 additional courses in philosophy. (30 credits.)

Students may elect to declare a specialization within the major. See the description following the course listings. To receive recognition for a specialization, a student needs to assemble a dossier of three papers that are related to the specialization. One of the papers will be from the Senior Seminar. The student must be able to show at least a B average on the papers overall. Students need to declare a specialization during advising for their final year. They then need to develop a proposal for their specialization by the second week of the senior seminar.



Specializations include Philosophy of Religion, Religion and Politics, Political Philosophy, Continental Philosophy, Comparative Religion, and History of Philosophy.

*Minor:* PHL 120, 210, 270; PHL 301 or 311; 2 additional courses in philosophy. (18 credits.)

*Courses in Philosophy:*

**PHL 110. Introduction to Philosophy.** 3 credits. [L6]

**PHL 120. Basic Logic.** 3 credits.

**PHL 210. Ethics.** 3 credits. [L6, WP]

**PHL 222. American Philosophy.** 3 credits. [L6]

**PHL 229. Culture and Conflict in Modern America.** 3 credits. [SDS, WP]

**PHL 230. Philosophy of Religion.** 3 credits. [L6, WP]

**PHL 270. Seminar in the History of Philosophy.** 3 credits. [WP]

**PHL 301. Key Authors.** 3 credits. [WP]

**PHL 311. Key Issues.** 3 credits. [WP]

**PHL 345. Political Philosophy.** 3 credits. [DSP, WP]

**PHL 349. The Holocaust: a Case Study in Social Ethics.** 3 credits. [DSP, WP]

**PHL 417. Seminar in Law.** 3 credits. [WP]

**PHL 499. Senior Seminar.** 3 credits. [WP]

For additional information about these programs, including faculty and full course descriptions, please visit [www.lvc.edu/religion-philosophy](http://www.lvc.edu/religion-philosophy)

## SOCIAL STUDIES PROGRAM

The College offers a program for students seeking certification to teach social studies in the secondary schools. The program includes three required components: the social studies core, the secondary education core, and a major in history or political science (graduation requirements for these majors are noted in this catalog under the History and Political Science Department). There is no major in Social Studies Education. Dr. James H. Broussard is the coordinator of the social studies certification program.

*Program Requirements:*

*Social Studies core courses:* ECN 105; HIS 103, 105, 125, 126, 202; PSC 110, 210, 245; PSC 330 (or another appropriate upper-level PSC course approved by the student's advisor); PSY 112, 180; SOC 110, 120 (42 credits).

*Secondary Education core courses:* Certification candidates must also complete 33 credits in additional required coursework. See the Education Department section on page 52 for additional information.

*Major courses:* history (36 credits) or political science (39 credits).

# DEPARTMENT OF SOCIOLOGY AND CRIMINAL JUSTICE

## Sociology Program

The major in Sociology gives you, the student, the tools to critically analyze the world and your place within it. Sociology explains how and why people behave as they do as well as the effects of their behavior on others. The 21st century labor market is fast changing, increasing global and technology driven. As a Sociology major you will learn to conduct research and data analysis, to communicate skillfully, to practice critical thinking and to gain a global perspective.

### *Degree Requirements:*

*Degree:* Bachelor of Arts with a major in sociology.

*Major:* SOC 110, 310, 311, 321, 499; 21 additional credits in sociology excluding internships, with a minimum of six credits completed at the 300-level (34 credits).

*Major with Criminal Justice Concentration:* SOC 110, 245, 278, 310, 311, 321, 331, 333, 499; nine additional credits in sociology excluding internships (34 credits).

*Minor:* SOC 110, 310, 311, 321; three elective courses in sociology excluding internships (19 credits). For criminal justice majors, the minor requires: SOC 110, 311, 321 and four electives that do not count toward the criminal justice major.

## Criminal Justice Program

The criminal justice major is a multi-disciplinary approach to examining the patterns associated with various crimes, theories of crime causation, victimization and society's response to crime. The components of the criminal justice system, including law enforcement, the courts, and corrections, are analyzed. Study of the criminal justice system includes a critical approach to examining the goals and controversies associated with crime control policies.

### *Degree Requirements:*

*Degree:* Bachelor of Arts with a major in criminal justice.

*Major:* SOC 110, 245, 278, 310, 311, 331, 333, 499; PSC 110, 316; 6 credits of internship in Sociology, Political Science or Psychology; two courses from SOC 220, 271, 272, 290/390 (topics in Criminology/Criminal Justice), SOC/PSY 270, PSC 415, or PSY 265. (40 credits)

### *Courses in Sociology and Criminal Justice:*

**SOC 110. Introduction to Sociology.** 3 credits. [L2]

**SOC 120. Introduction to Anthropology.** 3 credits. [L2]

**SOC 210. Social Problems.** 3 credits. [L2]

**SOC 220. Forensic Evidence.** 3 credits.

**SOC 224. Native American Experience.** 3 credits. [SDS]

**SOC 226. Women and Gender Issues.** 3 credits. [SDS]

**SOC 230. Sociology of Marriage and the Family.** 3 credits. [L2]  
**SOC 240. Diversity and Intercultural Communication.** 3 credits. [SDS]  
**SOC 245. Crime and Criminals.** 3 credits.  
**SOC 261. Perspectives on Aging.** 3 credits. [L2]  
**SOC 262. Race, Minorities and Discrimination.** 3 credits. [SDS]  
**SOC 270. Forensic Psychology.** 3 credits.  
**SOC 271. Child Abuse.** 3 credits.  
**SOC 272. Substance Abuse.** 3 credits.  
**SOC 278. Juvenile Justice.** 3 credits.  
**SOC 280. Sexuality and Society.** 3 credits.  
**SOC 310. Research Tools for the Social Sciences.** 1 credit.  
**SOC 311. Research Methods in Sociology.** 3 credits. [WP]  
**SOC 321. Social Theory.** 3 credits.  
**SOC 324. Medical Sociology.** 3 credits. [WP]  
**SOC 325. Urban Sociology.** 3 credits.  
**SOC 331. Criminology.** 3 credits. [WP]  
**SOC 333. Criminal Justice.** 3 credits.  
**SOC 335. Probation & Parole -Offenders in the Community.** 3 credits.  
**SOC 340. Group Structure and Dynamics.** 3 credits.  
**SOC 370. Adoption.** 3 credits.  
**SOC 400. Internship.** 1-12 credits.  
**SOC 499. Senior Seminar.** 3 credits. [WP]

For additional information about these programs, including faculty and full course descriptions, please visit [www.lvc.edu/sociology-criminal-justice](http://www.lvc.edu/sociology-criminal-justice).

## CONTINUING EDUCATION PROGRAMS

Continuing Education offers credit programs on five levels: certificate, associate, baccalaureate, advanced professional certificates, and teacher certification from non-matriculating, post-baccalaureate students. Certificates are starter programs that approximate the beginning of a four-year college experience, ideal springboards from which to go on for an associate's or bachelor's degree. Advanced professional certificate programs are intended for persons who have already been awarded a bachelor's degree in one discipline and desire to study another discipline in some depth.

A second bachelor's degree may be awarded to adult students who already have received a bachelor of arts or science from Lebanon Valley or another regionally accredited college or university. In such cases, students must only complete the major requirements for the second degree or a minimum of 30 credits, whichever is greater.

### **Bachelor's Degrees**

The following majors can be completed through coursework offered in the evening: accounting, business administration, health care management, individualized, and psychology. All other undergraduate programs offered by the College can be completed during the day on a part-time basis. Please see the appropriate section of the catalog for more information about these programs.

### **Associate's Degrees**

An Associate's degree may be earned by students who have been admitted through the Office of Graduate Studies and Continuing Education and who have pursued the degree through part-time study. Students must complete a total of 60 credits, including a minimum of 15 credits—and 15 of the last 18 credits—in residence. Students must complete one the requirements in general education and in a major area of study.

#### *General Education Requirements*

All students completing an associate's degree must complete the following courses (please see the general education program section for a listing of courses that satisfy each subrequirement): ENG 111, 112; one writing process course; one foreign language course; and one Liberal Studies course from the following areas: area 1 (history), area 2 (social science), area 3 (natural science), area 4 (mathematics), area 5 (literature and fine art), and area 6 (religion and philosophy).

#### *Major Requirements:*

*Degree: Associate of Science with a major in accounting.*

*Major:* ACT 161, 162, 251, 252; 353 or 455; BUS 130 (may be waived for prior work experience), 230, 285, 371; ECN 101, 102; MAS 170 (36 credits).

*Degree: Associate of Science with a major in business administration.*

*Major:* ACT 161, 162; BUS 130 (may be waived for prior work experience), 160, 230, 285, 371; ECN 101, 102; MAS 170 (30 credits).

*Degree:* Associate of Arts or Science with a major in general studies.

*Major:* 33 elective credits chosen according to the student's interest, in addition to the 28 credits from the general education requirement.

## **Certificate and Advanced Certificate Programs**

Continuing Education offers part-time students Certificate Programs for those who have no college degree and Advanced Professional Certificate Programs for those who received a bachelor's degree and are seeking proficiency in another area.

### *Accounting*

*Certificate requirements:* ACT 161, 162, 251, 252, 353, 455, and one ACT elective (21 credits).

*Advanced Professional Certificate requirements:* ACT 161, 162, 251, 252, 353, 455, and one ACT elective; BUS 285, 371; ECN 101 or 102 (30 credits).

### *Business Management*

*Certificate requirements:* ACT 161; BUS 230, 285, 340, 350, 371; ECN 101 or 102; ENG 111 (24 credits).

*Advanced Professional Certificate requirements:* ACT 161, 162; BUS 230, 285, 340, 350, 371; ECN 101, 102; MAS 170 (30 credits).

### *Liberal Studies*

*Certificate requirements:* ENG 111; one foreign studies or foreign language course; and one Liberal Studies course from the following areas: area 1 (history), area 2 (social science), area 3 (natural science), area 4 (mathematics), area 5 (literature and fine art), and area 6 (religion and philosophy). (Please see the general education program section for a listing of courses that satisfy each subrequirement.)

### *Supervisory Management*

*Certificate requirements:* BUS 230, 285, 350, 371, 420, 450; SDS 330; ENG 111 (24 credits).

## **Teacher Certification for Post-baccalaureate Students**

Lebanon Valley College offers teacher certification to a variety of special students: students with degrees from other colleges, teachers seeking certification in other fields, or Lebanon Valley College alumni seeking certification for the first time. All candidates must meet the criteria for Admission to Teacher Certification Candidacy as detailed under the Department of Education, page 48.

## GRADUATE ACADEMIC PROGRAMS

Lebanon Valley College offers four graduate programs. These are the Master of Business Administration (MBA), the Master of Music Education (MME), the Master of Science Education (MSE), and the Doctor of Physical Therapy (DPT) programs.

The Master of Business Administration Program is a multi-disciplinary program designed to prepare graduates for managerial responsibilities at various levels of business organizations. This program provides a strong theoretical foundation as well as operational expertise in the areas of finance, leadership, marketing, international business, and operations management.

LVC also offers an MBA with a concentration in healthcare management. The MBA with a concentration in healthcare management will position graduating students to assume greater roles and authority within the healthcare delivery system, and will allow graduates to be champions and advocates for continuous quality and cost improvement in all aspects of the healthcare system. This program consists of eight MBA courses and four healthcare courses. The eight MBA courses will give students a strong business foundation. The four healthcare courses will be structured around the Business Performance Management framework (topics that focus on the issues of strategic planning, operational planning, performance measurement, and performance improvement); and the Balanced Scorecard (the establishment of performance metrics across four key perspectives: financial, customer, internal process, and learning and development).

The Master of Music Education Program is designed to be completed over the course of three summers. Addressing the graduate education needs of K–12 music teachers (the program is accredited by the National Association of Schools of Music), the curriculum includes experiences in foundations and principles of music education, research methods, music technology, and the psychology of music learning plus several elective choices.

The Master of Science Education Program employs a collaborative learning approach with classes designed to apply to any age range, from K-12. High school teachers work alongside middle school and elementary teachers, with each benefiting from the experience and insight of their colleagues. This learning environment helps MSE students to prepare their own students for success in state and national science assessments.

The Doctor of Physical Therapy Program is a six-year program of study for students who will receive a preliminary baccalaureate degree in health science after four years of course work.

### Graduate Program Policies and Procedures

#### *Academic Advising and Registration*

Graduate students should contact their academic advisors prior to class registration. The advisor will develop a graduation plan with the student. All course registrations require the advisor's approval.

### *Veteran Registration*

Students receiving educational benefits provided by the Department of Veteran Affairs (DVA) must report their enrollment to the Financial Aid Office upon registration each semester or summer session. The Financial Aid Office will then submit certification of enrollment to the DVA. Students should complete the FAFSA and the financial aid process each year according to the school's requirements and deadlines. Students receiving EAP and/or FTA benefits are responsible for applying for these benefits through their unit of assignment prior to the start of each semester or summer session and for submitting all necessary forms to the Financial Aid Office.

Students must notify the Financial Aid Office immediately if they change the number of credits for which they are enrolled, withdraw, or request a leave of absence. Failure to do so may result in a charge to the student from the DVA for overpayment of benefits. For more information on veterans benefits, please visit the financial aid web page: [www.lvc.edu/financial-aid/military-benefits.aspx](http://www.lvc.edu/financial-aid/military-benefits.aspx).

### *Transfer Credit*

A maximum of 9 credits (a maximum of 6 core credits) may be transferred from another graduate program with the approval of the registrar and program director/coordinator of the MBA, MSE, and MME. No transfer credit shall be accepted if the grade earned at another institution was less than B (a grade of B- or lower will not be accepted). Students wishing to transfer credits may be asked to submit course outline, textbook used, and any reading materials, so proper credit may be given. No graduate transfer credit is accepted in the DPT program.

### *Concurrent Courses*

A student enrolled for a graduate degree may not take courses concurrently at another educational institution without prior consent of the academic advisor and the registrar.

### *Grading*

Student work is graded A, A-, B+, B, B-, C+, C and F. Candidates must maintain a grade point average of 3.00 with a maximum of two C grades in the program.

In addition, the symbols I, IP, and W are used. I indicates that the work is incomplete (certain required work postponed by the student for substantial reason with the prior consent of the instructor) but otherwise satisfactory. This work must be completed within the first four weeks of the end of the course or the I will be converted to an F. Instructors may set an earlier deadline. Appeals for an extension of the incomplete grade past the four-week period must be presented to the program director prior to the incomplete due date. IP (in progress) is a temporary grade for certain courses that have not concluded by the end of the semester. W indicates withdrawal from a course through the tenth week of full-semester classes (or up to the first two-thirds of course meeting during the summer or for an abbreviated period during fall and spring semesters).

MSE 830, MME 805/806, and some PHT courses (see Doctor of Physical Therapy section) are graded pass/fail.

### *Review Procedure*

Every student's academic progress shall be reviewed at the end of each academic period by the academic advisor. Any student whose average falls below 3.00 or who earns a C or F in three or more credit hours may be placed on academic probation. A student on academic probation may be required to retake courses or correct other academic deficiencies and must achieve a 3.00 cumulative average within two semesters of being placed on probation. A student may repeat a maximum of two graduate courses with any given course being repeated only once. Students who fail to correct deficiencies may be dropped from the program. A student may appeal any decision of the Office of Graduate Studies and Continuing Education to the Vice President of Academic Affairs and Dean of the Faculty.

### *Course Withdrawal and Tuition Refund*

Any MBA, MME, or MSE student who withdraws from courses for which he or she is registered must notify the Graduate Studies and Continuing Education Office. The effective date of withdrawal is the date on which the student notifies the office. Failure to give notice of withdrawal will result in a grade of F. Notifying the instructor does not constitute official withdrawal. A refund schedule based on official withdrawal date is available on the GS and CE web pages. Part-time students receiving federal financial assistance (Title IV) will receive a refund according to federal policy as noted above.

### *Time Restriction*

The maximum time for completion of a graduate program is seven years from the date of the admission letter. Students who have not earned the graduate degree during this period shall have their academic standing reviewed and may be asked to meet additional requirements in order to graduate.

### *Academic Honesty*

Students are expected to uphold the principles of academic honesty. Academic dishonesty will not be tolerated. For the first academic dishonesty offense, failure in the course is mandatory, and the faculty member is required to inform the program director/coordinator in writing. A letter of warning shall be sent to the student by the program director/coordinator explaining the consequences and the right of appeal. For the second offense, failure in the course and expulsion from the graduate program and College are mandatory.

### *Privacy of Student Records*

In accordance with the Family Educational Rights and Privacy Act of 1974 (P.L. 39-380) Lebanon Valley College releases no student education records without written consent and request of the student or as prescribed by the law. Each student has access to his or her education records with exclusions only as specified by the law.



### *Financial Aid*

Students may participate in the Stafford Loan Program. Graduate students should contact the Financial Aid Office at 717-867-6181 to discuss financial aid eligibility.

### *Employee Tuition Reimbursement*

Students are encouraged to inquire about tuition reimbursement programs at their places of employment. Students who participate in an employer reimbursement program may be eligible for the deferred tuition option. Some employers authorize the College to bill them directly. In this case, students must present billing authorization when they register. Information on direct bill and deferred tuition options can be found on the Graduate Studies and Continuing Education web pages.

### *Withdrawal from Program and College and Readmission*

To withdraw from Lebanon Valley College, a graduate student must complete an official withdrawal form obtained from the academic advisor. To apply for readmission, a graduate student must have the written approval of the director of graduate studies and continuing education.

## **MASTER OF BUSINESS ADMINISTRATION**

The MBA Program at Lebanon Valley College is a unique program that combines liberal arts studies with career preparation in the field of business administration. It is a part-time program. The multi-disciplinary nature of the curriculum includes standard MBA-level courses along with exposure to courses in executive communications, ethical leadership, and organizational behavior.

### *MBA Admissions*

Candidates for admission must have a bachelor's degree from an accredited college or university as well as the interest, aptitude, and ability to undertake graduate studies. All candidates must provide official transcripts of undergraduate and graduate work, a completed application, and a current resume. Applicants should have at least three years of substantial business or professional experience. Applicants should have achieved an undergraduate GPA of at least 3.25 or have completed advanced degrees at the master's or doctoral level. Those applicants who have achieved an undergraduate GPA below 3.25 must provide two letters of recommendation from immediate supervisors and a personal statement of how the applicant will benefit from and contribute to the MBA Program. All candidates must schedule a personal interview with the director of the MBA program.

Graduate admission is on a rolling basis; action usually will be taken within two weeks of receipt of all required documentation. Qualified candidates may register for up to two graduate classes while completing the application process. The MBA program at LVC is a part-time program. A maximum of six credits may be taken during each semester.

## *Graduation Requirements*

A candidate for the MBA degree must complete a minimum of 36 credits, of which 27 must be earned at Lebanon Valley College. There are nine required core courses (27 credits) and three electives of the student's choice (9 credits) for a total of 36 credits. A candidate must achieve at least a 3.00 cumulative average with a maximum of two C's within the 36 graduate credits to be certified for graduation.

## *Prerequisites*

Prospective students must demonstrate that they have command of the undergraduate common body of knowledge, including finance, accounting, and working knowledge of Microsoft Word, Excel, and Powerpoint. Prerequisites can be satisfied by the completion of undergraduate courses, by a waiver for knowledge gained through life experience or by examination.

*Degree:* Master of Business Administration.

*Graduate Core:* MBA 805, 810, 815, 825, 840, 860, 875, 885, 895 (27 credits) and three from the following MBA 801, 850, 855, 865, 870, 875, 880, 890, special topics (9 credits). Total of 36 credits.

*Healthcare Management Concentration:* MBA 801, 802, 803, 804, MBA 805, 810, 815, 825, 860, 885, 895 (33 credits) and one from the following MBA 850, 855, 865, 870, 875, 880, 890, special topics (3 credits). Total of 36 credits.

## *Master of Business Administration Courses:*

**MBA 801. Introduction to Healthcare Management.** 3 credits.

**MBA 802. Ethical, Legal, and Regulatory Issues in Healthcare.** 3 credits.

**MBA 803. The Economics and Financing of Healthcare.** 3 credits.

**MBA 804. Healthcare Operations Management.** 3 credits.

**MBA 805. Financial Policy.** 3 credits.

**MBA 807. Business Innovation and Creativity.** 3 credits.

**MBA 810. Organizational Behavior.** 3 credits.

**MBA 815. Marketing Management.** 3 credits.

**MBA 817. Business and Technology.** 3 credits.

**MBA 825. Executive Communications.** 3 credits.

**MBA 827. Project Management.** 3 credits.

**MBA 840. Operations Management.** 3 credits.

**MBA 845. Operations Management II.** 3 credits.

**MBA 847. Sales Management.** 3 credits.

**MBA 850. Human Resource Management.** 3 credits.

**MBA 855. Legal Environment of Business.** 3 credits.

**MBA 857. Supply Chain Management.** 3 credits.

**MBA 860. International Business Management.** 3 credits.

**MBA 865. Entrepreneurship.** 3 credits.

**MBA 870. Labor Management Relations.** 3 credits.

**MBA 875. Managerial Decision Making.** 3 credits.

**MBA 880. Investments and Portfolio Management.** 3 credits.

**MBA 885. Ethical Leadership.** 3 credits.

**MBA 890. Special Topics.** 3 credits.

**MBA 895. Strategic Management.** 3 credits.

For additional information about this program, including faculty and full course descriptions, please visit [www.lvc.edu/mba](http://www.lvc.edu/mba).

## MASTER OF MUSIC EDUCATION

The Master of Music Education (MME) Program is designed to meet the needs of area K–12 music educators. It is offered in response to a significant regional need met by on- and off-campus expertise and a shared interest in improving the quality of music education in this part of the Commonwealth. It is a summer only program in which a student can, with careful advising, complete the coursework in three summers and continue work on the capstone experience throughout the academic year.

### *MME Admissions*

While prior teaching experience is not a requirement for entrance into this degree program, individuals considering pursuit of a master's degree in music education should plan on teaching one to three years prior to initial enrollment or before completing the degree. It is the conviction of this faculty that graduate study will be more meaningful to the individual if he or she has first gained experience in the field.

All candidates must have a bachelor's degree in music from a regionally accredited college or university and submit an official transcript with the application. Any graduate courses to be considered for transfer (up to nine credits, a maximum of 6 credits in the core) also require an official transcript sent by the respective colleges or universities to the Office of Graduate Studies and Continuing Education. Priority for core courses will be given to students matriculated into the MME program.

All candidates must submit the application form and required application fee with a current resume and a personal written statement (one page) indicating why they wish to pursue this degree. All candidates must submit a copy of a current Teaching Certificate in Music with the application.

All candidates must submit three letters of recommendation with the application, which address the candidate's readiness for graduate study.

Graduate admissions are on a rolling basis; action will be taken promptly after all paperwork has been received and evaluated.

### *Degree Requirements*

Every MME candidate must complete 30 graduate credits, 21 of which must be earned at Lebanon Valley College. There are four required core courses (12 credits). The capstone experience includes either a project or a thesis (3 credits). The other 15 credits will be selected from among several elective opportunities. Courses in

the Lebanon Valley College MME Program are taught on the Annville campus.

*Degree:* Master of Music Education

*Core Courses:* MME 801, 802, 803, 804 (12 credits), and 805 (project) or 806 (thesis).

*Master of Music Education Courses:*

**MME 801. Foundations of Music Education.** 3 credits.

**MME 802. Research Methods in Music Education.** 3 credits.

**MME 803. Technology for Music Educators.** 3 credits.

**MME 804. Psychology of Music Learning.** 3 credits.

**MME 805. Project.** 3 credits.

**MME 806. Thesis.** 3 credits.

**MME 830. Private Applied.** 1 credit.

**MME 840. Private Applied.** 2 credits.

**MME 890. Special Topics.** 3 credits.

For additional information about this program, including faculty and full course descriptions, please visit [www.lvc.edu/mme](http://www.lvc.edu/mme).

## MASTER OF SCIENCE EDUCATION

Students enrolled in this program will concentrate on the principles and content of science as well as on the appropriate teaching strategies to convey these concepts to their students. The courses are designed to maximize the opportunity for using hands-on, minds-on science processing skills needed by students in the 21st century. This learning environment helps MSE students to prepare their own students for success on all forms of state and national science assessments. The program will culminate with the satisfactory completion of a research project in science education.

### *MSE Admissions*

To qualify for admission to the Master of Science Education Program, the applicant must fulfill the following requirements:

- An applicant must hold a baccalaureate degree from a regionally accredited institution and must arrange to have official transcripts submitted for each undergraduate institution attended. If transfer credits are to be considered, transcripts from graduate courses must also be requested by the applicant.
- An applicant should hold a valid teaching certificate. Otherwise, applicants may be considered for entrance after meeting with the MSE coordinator.
- An applicant must have achieved a 3.0 quality point average (QPA) on a four point scale for the baccalaureate degree. An applicant with less than the 3.0 QPA may be admitted with provisional status pending satisfactory completion of six semester hours of graduate study with a 3.0 or above.

- An applicant must submit three letters of recommendation in support of their admission to the graduate program.
- An applicant must submit a personal statement that addresses their career goals and reason for pursuing a graduate degree in science education.

### *Degree Requirements*

A candidate for the MSE degree must complete a minimum of 30 credits, of which 21 must be earned at Lebanon Valley College. Only 6 credits may be transferred into the core. There are eight core courses (24 credits), one elective of the student's choice (3 credits), and an independent research project (3 credits), for a total of 30 credits. A candidate must achieve at least a 3.00 cumulative average to be certified for graduation.

*Degree:* Master of Science Education.

*Graduate Core:* MSE 800, 801, 802, 803, 805, 809, 810, 829, 830 and one of any elective offered. Total of 30 credits.

### *Master of Science Education Courses:*

**MSE 800. Introduction to Science Education in the Classroom.** 3 credits.

**MSE 801. Principles of Biology and Life Science.** 3 credits.

**MSE 802. Principles of Chemistry.** 3 credits.

**MSE 803. Principles of Physics and Physical Science.** 3 credits.

**MSE 805. Principles of Earth and Space Science.** 3 credits.

**MSE 809. Curriculum Design I.** 3 credits.

**MSE 810. Curriculum Design II.** 3 credits.

**MSE 820. Seminar.** 1-3 credits.

**MSE 829. Research Methods.** 3 credits.

**MSE 830. Independent Research in Science Education.** 1-3 credits.

**MSE 850. Independent Study.** 1-6 credits.

For additional information about this program, including faculty and full course descriptions, please visit [www.lvc.edu/mse](http://www.lvc.edu/mse).

## **DOCTOR OF PHYSICAL THERAPY**

The Physical Therapy Program consists of a six-year program of study leading to a Doctor of Physical Therapy (D.P.T.) degree. Students at Lebanon Valley College receive a baccalaureate degree in health science after successful completion of four years of coursework. See Health Science Program information on page 132.

The program consists of two distinct phases: pre-professional education (three years, or approximately 95 semester credit hours); and professional education (three years, approximately 118 semester credit hours).

*Lebanon Valley College's Doctor of Physical Therapy Degree Program is accredited by the Commission on Accreditation in Physical Therapy Education.*

*Degree:* Doctor of Physical Therapy.

*Prerequisites:* two semesters each of general biology, chemistry, and physics; one semester upper level human anatomy and physiology, introductory psychology and sociology, and elementary statistics.

*Professional required courses:* PHT 412, 502, 504, 511, 514, 516, 518, 520, 532, 534, 542, 550, 560, 710, 716, 720, 726, 728, 730, 742 736, 738, 740, 750, 760, 752, 762, 764, 802, 830, 832, 834, 836, 850, 860.

*Professional Phase Program Requirements:* Students enrolled in professional phase courses must maintain a GPA of 3.0 in the professional phase. Any student whose cumulative professional-phase GPA falls below 3.0 will be placed on academic probation. Students with deficient GPAs have two academic semesters to remediate their GPA to 3.0. After reestablishing the minimum 3.0 GPA, the student must maintain a minimum cumulative 3.0 grade point average each subsequent semester for the remainder of the professional phase of the program or be subject to dismissal from the program.

A minimum final grade of 'C' (> 73%) is required for all professional phase courses. A final course grade less than a 'C' (< 73%) does not meet professional standards and will result in the student being removed from the professional phase of the program. Reentry into the program is possible only after successful completion of a remediation plan. A grade of 'C' (< 73%) in any two courses will result in dismissal from the program without option for reentry.

#### *Physical Therapy Courses:*

**PHT 710. Spanish for Physical Therapy and Rehabilitation.** 2 credits.

**PHT 716. Health Promotion for Self and Society.** 3 credits.

**PHT 720. Neuroscience.** 4 credits.

**PHT 726. Clinical Interventions I.** 4 credits.

**PHT 728. Musculoskeletal I.** 4 credits.

**PHT 730. Clinical Interventions II.** 4 credits.

**PHT 732. Musculoskeletal II.** 3 credits.

**PHT 736. Neuromuscular Physical Therapy I.** 4 credits.

**PHT 738. Geriatrics Physical Therapy.** 3 credits.

**PHT 740. Prosthetics and Orthotics.** 2 credits.

**PHT 750. Evidence Based-Critical Inquiry II.** 2 credits.

**PHT 752. Evidence Based-Critical Inquiry III.** 2 credits.

**PHT 760. Clinical Education I.** 3 credits.

**PHT 762. Clinical Education II.** 3 credits.

**PHT 764. Clinical Education III.** 3 credits.

**PHT 795. Student Run Free Clinic III.** 0 credits.

**PHT 796. Student Run Free Clinic IV.** 0 credits.

**PHT 802. Physical Therapy Administration and Management.** 4 credits.

**PHT 830. Neuromuscular PT II.** 4 credits.

**PHT 832. Pediatric Physical Therapy.** 4 credits.

**PHT 834. Selected P.T. Practice Topics.** 2 credits.

**PHT 836. Differential Diagnosis.** 3 credits.

**PHT 850. Evidence Based-Critical Inquiry IV.** 2 credits.

**PHT 860. Clinical Education IV.** 12 credits.

**PHT 895. Student Run Free Clinic V.** 0 credits.

For additional information about this program, including faculty and full course descriptions, please visit [www.lvc.edu/physical-therapy](http://www.lvc.edu/physical-therapy).







# INDEX

Academic Calendar .....	102, 103	Cooperative programs .....	28
Academic honesty policy		Courses, undergraduate	
undergraduate .....	20	concurrent .....	15
graduate .....	88	descriptions .....	online
Academic procedures		repetition of .....	14
undergraduate .....	10	Courses, graduate .....	90, 92, 93, 94
graduate .....	86	descriptions .....	online
Accounting program .....	40	Credit for life experience .....	18
Accreditation .....	3	Criminal justice program .....	82
Actuarial science program .....	66	Degrees	
Admissions		undergraduate .....	10
undergraduate full time .....	5	graduate .....	86
undergraduate part time .....	8	Dean's list .....	19
continuing education .....	8	Departmental honors .....	20
MBA .....	89	Digital communications program .....	46
MME .....	91	Doctor of physical therapy program .....	93
MSE .....	92	Early childhood education .....	50
DPT .....	93	Economics program .....	42
Administration .....	online	Education program .....	48
Advanced placement .....	17	Engineering cooperative program .....	28
American studies program .....	34	English program .....	54
Art and art history program .....	35	External summer courses .....	15
Associate degrees .....	10, 84	Faculty .....	online
Attendance policy .....	15	Finances, student .....	5
Auditing policy .....	14	Foreign study opportunities .....	33
Baccalaureate degrees .....	10	French program .....	62
Biochemistry and		General education program .....	24
Molecular Biology program .....	38	German program .....	62
Biology program .....	37	Grade point average .....	19
Business Administration program .....	39	Grading system .....	19
Calendar .....	102–103	Graduate programs .....	86
Certificate programs .....	8, 85	academic policies .....	86
Challenge examinations .....	17	concurrent courses .....	87
Chemistry program .....	44	financial aid .....	89
Citizenship education program .....	46	grading system .....	87
CLEP .....	18	privacy of student records .....	88
College support staff .....	online	refund policy .....	88
Communications concentration .....	54	review procedure .....	88
Computer science program .....	67	time restriction policy .....	88
Concurrent courses .....	15, 87	transfer policy .....	87

veteran's registration .....	87	Music education program .....	73
withdrawal policy .....	88, 89	Music program .....	69
Graduation honors .....	19	Music recording technology program ....	73
Graduation requirements		Nontraditional credit policy.....	17
Continuing Education programs .....	84	Off-campus programs	
DPT .....	94	study abroad .....	33
MBA.....	90	Officers, general College .....	online
MME .....	91	Pass/fail policy .....	14
MSE .....	93	Payment plans.....	8
undergraduate.....	10	Phi Alpha Epsilon .....	20
Health care management program		Philosophy program .....	80
requirements.....	43	Phone Numbers .....	101
Health science program .....	74	Physical therapy program .....	74, 93
Historical communications program .....	57	Physics program .....	75
History program .....	57	Political science program .....	60
Honors		Pre-law program .....	29
departmental.....	20	Pre-medical, pre-dentistry,	
graduation .....	20	pre-veterinary programs .....	30
In-Absentia .....	15	Privacy of student records .....	10
Independent study .....	32	Probation, undergraduate .....	22
Individualized major .....	31	Profile of the College .....	2
International baccalaureate program .....	18	Psychobiology program.....	39
International studies program .....	58	Psychology program .....	77
Internship policy .....	31	Readmission policy .....	16
Italian courses .....	63	Refund policy	
Knisley teaching awards .....	online	undergraduate.....	5
Languages program .....	61	graduate .....	88
Law and society minor .....	60	Registration .....	13
Leave of absence .....	15	Religion program.....	79
Limit of hours .....	12	Repetition of courses	
Map of campus .....	96–97	undergraduate.....	14
Mathematical science program .....	64	ROTC.....	68
MBA program .....	89	Sanskrit courses.....	63
Medical technology		Satisfactory academic progress .....	12
cooperative program .....	29	Second bachelor's degree .....	16
Military science program .....	68	Secondary education program.....	52
Mission statement .....	3	Servicemembers Opportunity	
MME program.....	91	Colleges (SOC) .....	8
MSE program .....	92	Social studies program .....	81
Multidisciplinary courses .....	28	Sociology program .....	82
Music business program .....	72	Spanish program .....	63

Special education	Transfer policy
certification program .....53	undergraduate.....12
Special Education PreK–Grade 8 .....53	graduate .....87
Special topics courses .....32	Trustees, Board of .....online
Study abroad .....33	Tutorial study courses .....32
Suspension policy	Veterans’ services .....8, 87
undergraduate.....22	Vickroy teaching awards .....online
Teacher certification	Withdrawal procedure
matriculated students .....48	undergraduate.....16
nonmatriculated students .....85	graduate .....88

*Online sections can be found online in Volume II of the catalog at [www.lvc.edu/catalog](http://www.lvc.edu/catalog).*

# PHONE NUMBERS

## College Offices\*

Academic Affairs	6208
Academic Services	6078
Admission	6181
Business Office	6300
Career Services	6235
College Center	6161
College Store	6313
Computer Lab (Lynch)	6067
Continuing Education and Graduate Studies	6213
Counseling Services	6696
Disability Services	6071
Financial Aid	6181
Health Services	6232
Heilman Fitness Center	6361
Help Desk, IT Services	6072
Library	6977
Registrar	6215
Safety and Security	6111
Student Affairs	6233

## Academic Departments\*

American Studies	6359
Art and Art History	6015
Biology	6175
Business and Economics	6101
Chemistry	6140
Education	6305
English	6240
History and Political Science	6355
Languages	6250
Mathematical Sciences	6080
Music	6275
Physics	6150
Psychology	6195
Religion and Philosophy	6130
Sociology and Criminal Justice	6155

*\* Area code 717, prefix 867*

# 2011–2012 ACADEMIC CALENDAR

## First Semester

August	27	Saturday, 8 a.m.	Residence halls open for new students
	28	Sunday, noon	Residence halls open for returning students
	29	Monday, 8–11 a.m., 12:30–5 p.m.	Advising Day
	29	Monday, 11 a.m.–12:30 p.m.	New Student Activities
	<b>29</b>	<b>Monday, 4:30 p.m.</b>	<b>Opening Convocation</b>
	<b>29</b>	<b>Monday, 6 p.m.</b>	<b>Evening classes begin</b>
	<b>30</b>	<b>Tuesday, 8 a.m.</b>	<b>Day Classes Begin</b>
September	30	Tuesday, 8 a.m.	Add/Drop period begins
	<b>6</b>	<b>Tuesday, 4:30 p.m.</b>	<b>Add/Drop period ends. Last day to drop course without a grade of “W”</b>
October	7	Friday, 5 p.m.	Fall break begins
	12	Wednesday, 8 a.m.	Classes resume
	<b>14–16</b>	<b>Friday–Sunday</b>	<b>Homecoming/Family Weekend</b>
	19	Wednesday, 12 p.m.	Mid-term grades due
November	<b>4</b>	<b>Friday, a.m.</b>	<b>Spring 2012 registration begins</b>
	<b>4</b>	<b>Friday, 4:30 p.m.</b>	<b>Last day to change fall registration or withdraw from a course</b>
	<b>11</b>	<b>Friday, p.m.</b>	<b>Spring 2012 registration ends</b>
	23	Wednesday, noon	Thanksgiving vacation begins
	28	Monday, 8 a.m.	Classes resume
December	<b>9</b>	<b>Friday, 4:30 p.m.</b>	<b>Last day for first-semester freshmen to withdraw from a course</b>
	<b>9</b>	<b>Friday, 5 p.m.</b>	<b>Day classes end</b>
	10	Saturday	Reading Day
	11	Sunday	Reading Day
	<b>12–17</b>	<b>Monday–Saturday</b>	<b>Final examinations</b>
	15	Thursday, 9 p.m.	Evening classes end
	17	Saturday, 5 p.m.	Semester ends
	<b>21</b>	<b>Wednesday, noon</b>	<b>Final grades due</b>

# 2011–2012 ACADEMIC CALENDAR

## Second Semester

January	17	Monday, noon	Residence halls open for students
	17	<b>Monday</b>	<b>Martin Luther King, Jr. Holiday</b> <b>No Classes</b>
	17	Tuesday, 8 a.m.	Add/Drop period begins
	17	Tuesday, 8 a.m.	Day classes begin
	17	Tuesday, 6:30 p.m.	Evening classes begin
	24	<b>Tuesday, 4:30 p.m.</b>	<b>Add/Drop period ends. Last day to drop a course without a grade of “W”</b>
February	14	Tuesday, 11 a.m.	Founders Day
March	2	Friday, 5 p.m.	Spring vacation begins
	12	Monday, 8 a.m.	Classes resume
	21	Wednesday, Noon	Mid-term grades due
April	5	<b>Thursday, 4:30 p.m.</b>	<b>Last day to change registration or withdraw from a course</b>
	5	Thursday, 5 p.m.	Easter Break begins
	9	Monday, 6 p.m.	Classes resume
	13	Friday, 4:30 p.m.	Graduation Plans due for students graduating in May, August, and December 2013
	13	<b>Friday, a.m.</b>	<b>Fall 2012 registration begins</b>
	20	<b>Friday, a.m.</b>	<b>Fall 2012 registration ends</b>
May	2	<b>Wednesday, 4:30 p.m.</b>	<b>Last day for first-semester freshmen to withdraw from a course</b>
	2	<b>Wednesday, 5 p.m.</b>	<b>Day classes end</b>
	3	Thursday	Reading Day
	4–5	<b>Friday and Saturday</b>	<b>Final Examinations</b>
	6	Sunday	Reading Day
	7–10	Monday–Thursday	Final Examinations
	10	Thursday, 9 p.m.	Evening classes end; semester ends
	11	<b>Friday, noon</b>	<b>Senior grades due</b>
	12	Saturday, 9 a.m.	Baccalaureate Service
	12	Saturday, 11 a.m.	143rd Commencement
	18	<b>Friday, noon</b>	<b>Final grades due</b>

Undergraduate and Graduate  
**Catalog 2011–2012**  
Volume II

**Lebanon Valley College**



# TABLE OF CONTENTS

UNDERGRADUATE COURSE DESCRIPTIONS .....	4
Courses in Accounting .....	4
Courses in Actuarial Science .....	4
Courses in American Studies .....	5
Courses in Art & Art History .....	5
Courses in Biochemistry and Molecular Biology .....	8
Courses in Biology .....	8
Courses in Business .....	10
Courses in Chemistry .....	12
Courses in Computer Science .....	13
Courses in Digital Communications .....	14
Disciplinary Perspectives Courses .....	16
Courses in Early Childhood Education .....	17
Courses in Economics .....	19
Courses in Education .....	20
Courses in Elementary Education .....	21
Courses in English .....	21
Courses in French .....	23
Courses in German .....	24
Courses in History .....	25
Courses in International Studies .....	28
Courses in Italian .....	28
Courses in Mathematics .....	28
Courses in Music .....	29
Courses in Music Business .....	32
Courses in Music Education .....	32
Courses in Music Recording Technology .....	33
Courses in Philosophy .....	34
Courses in Physical Therapy .....	35
Courses in Physics .....	36
Courses in Political Science .....	37
Courses in Psychobiology .....	40
Courses in Psychology .....	40
Courses in Religion .....	43
Courses in Sanskrit .....	44
Courses in Science .....	44
Courses in Secondary Education .....	44
Courses in Social Diversity Studies .....	45
Courses in Sociology .....	45
Courses in Spanish .....	48
Courses in Special Education .....	48
GRADUATE COURSE DESCRIPTIONS .....	50
Master of Business Administration Courses .....	50
Master of Music Education Courses .....	52
Master of Science Education Courses .....	52
Physical Therapy Courses .....	53

DIRECTORY .....	56
Board of Trustees, Lebanon Valley College .....	56
Trustees .....	56
Emeriti .....	57
Honorary .....	57
Administration .....	58
President.....	58
College General Officers .....	58
Administrative Officers .....	58
Academic Affairs .....	58
Administration and Information Technology.....	59
Advancement .....	59
Enrollment.....	60
Finance .....	60
Marketing and Communications .....	60
Student Affairs .....	61
Athletics .....	61
Faculty.....	62
Active .....	62
Adjuncts in Medical Technology (Clinical Laboratory Science) .....	67
Emeriti .....	67
College Support Staff.....	69
STATEMENT ON NON-DISCRIMINATION .....	71
TEACHING AWARDS .....	72
The Thomas Rhys Vickroy Distinguished Teaching Awards .....	72
The Nevelyn J. Knisley Award For Inspirational Teaching .....	73

## UNDERGRADUATE COURSE DESCRIPTIONS

### *Courses in Accounting*

**ACT 161. Financial Accounting.** Basic concepts of accounting including: accounting for business transactions, preparation and use of financial statements, and measurement of owners' equity. 3 credits.

**ACT 162. Managerial Accounting.** Cost-volume-profit relationships, cost analysis, business segment contribution, profit planning and budgeting as a basis for managerial decision making. Prerequisite: ACT 161 with a minimum grade of C- or better. 3 credits.

**ACT 251. Intermediate Accounting I.** Study of the theory and development of generally accepted accounting principles as they relate to financial reporting; the application of these principles to the preparation of financial statements; special emphasis on revenue recognition as well as valuation, classification and disclosure of current assets. Prerequisite: ACT 162. 3 credits.

**ACT 252. Intermediate Accounting II.** Study of the application of accounting principles for noncurrent assets, long-term liabilities and stockholder's equity, including analysis of financial statements. Prerequisite: ACT 251 with a minimum grade of C- or better. 3 credits.

**ACT 253. Intermediate Accounting III.** This course is a continuation of ACT 252 with the study of the measurement and reporting of income taxes, pensions, leases, accounting changes, disclosure issues, the cash flow statement, and the effects of errors. The course also addresses international accounting standards as they compare to U.S. GAAP and international reporting issues for U.S. companies. Case study component. Strongly recommended for students planning to take the CPA exam. Prerequisite: ACT 252. 3 credits.

**ACT 280. Financial Fraud: Prevention and Detection.** Explores the pervasiveness, causes, and types of financial crimes currently being encountered using text, discussion, problems, and case studies. Course identifies methods of fraud detection, investigation, and prevention. Prerequisites: ACT 162. 3 credits. [This course is cross-listed with BUS 280]

**ACT 351. Advanced Accounting.** The emphasis of this course is on business combinations and consolidated financial statements. The course also addresses accounting principles applicable to partnerships, SEC reporting, insolvency, and fiduciaries. Prerequisite: ACT 252. 3 credits.

**ACT 352. Government and Non-Profit Accounting.** Basic concepts of fund and budgetary accounting used for financial activities of governmental units and not-for-profit organizations. Prerequisite: ACT 162. 3 credits.

**ACT 353. Cost Accounting.** Analysis and use of techniques for cost management and control; the accumulation and recording of the costs including job-order, process and standard cost systems, joint and by-product costing; contemporary topics such as activity based costing and just-in-time manufacturing. Prerequisite: ACT 162. 3 credits.

**ACT 400. Internship.** Practical and professional work experience related to the student's career interests, involving both on-site and faculty supervision. Internship credit does not fulfill required electives in the major. May be repeated for credit (up to 12 credits of internship may be counted toward the degree). Prerequisites: 2.75 GPA, permission of the chairperson, completion of department's application form. Generally limited to juniors and seniors. 1-12 credits.

**ACT 451. Individual Income Tax.** Analysis of the federal income tax laws as applied to individuals; case problems, preparation of returns. Prerequisite: ACT 162. 3 credits.

**ACT 452. Corporate Taxation.** Analysis of the federal income tax laws as applied to corporations, partnerships and fiduciaries; case preparation of returns. Prerequisite: ACT 451. 3 credits.

**ACT 455. Auditing.** A study of the process of evaluation of internal controls and interpretation of financial information to permit an auditor to express a professional opinion on financial reports. Prerequisite: ACT 252. 3 credits.

### *Courses in Actuarial Science*

**ASC 281. Probability for Risk Management.** An introduction to risk management in property/casualty and life insurance with emphasis on probability concepts. Prerequisite: MAS 112. 3 credits.

**ASC 385. Mathematics of Finance I.** Measurement of interest, time value of money, annuities, amortization and sinking funds, bonds, capitalized cost, net present value, yield rates, yield curves, duration, immunization; derivative products including calls, puts, forwards, and swaps. Prerequisite: MAS 112 or 162. 3 credits.

**ASC 386. Mathematics of Finance II.** Parity, binominal pricing, Black-Scholes pricing, hedging, exotic options, and interest rate models. Prerequisite: ASC 385. Corequisite: MAS 371. 3 credits.

**ASC 472. Loss Distributions and Credibility Theory.** An introduction to loss distributions and credibility theory with emphasis on actuarial applications. Prerequisite: MAS 371. 3 credits.

**ASC 481. Actuarial Mathematics I.** Survival distributions, life insurance, life annuities, benefit premiums and reserves, multiple life and decrement models. Prerequisite: ASC 385; Corequisite: MAS 371. 3 credits.

**ASC 482. Actuarial Mathematics II.** Multiple life and decrement models, expenses, individual and collective risk models, compound distributions, including applications. Prerequisites: ASC 385,481. 3 credits.

**BCMB 401. Molecular Biology.** Gene structure, function and regulation at the molecular level in prokaryotic and eukaryotic organisms. Recombinant DNA techniques (genetic engineering) and gene sequencing are covered in detail. Prerequisite: Three semesters of chemistry and BIO 201 or permission of the instructor. 4 credits.

### *Courses in American Studies*

**AMS 111. Introduction to American Studies.** An interdisciplinary approach to the study of America's heritage and the distinguishing features of the American mind and character. Fulfills general education requirement: Liberal Studies Area 1 (History). 3 credits.

**AMS 220. American Popular Culture: Production and Consumption.** This course will offer a critical investigation of the role of popular culture in American life. From Tin Pan Alley to hip-hop, from fast food to pro wrestling, popular culture shows an increasing influence on American economic, social, and political life, and has become central in helping to define American identity and even reality itself. We all participate in popular culture in some way, and this course will give students the chance to explore its meanings and importance in their lives and in American culture. Fulfills general education requirement: Liberal Studies Area 1 (History). 3 credits.

**AMS 223. American Thought and Culture.** A survey of American intellectual history and cultural criticism ranging from Puritanism and Enlightenment Rationalism to multiculturalism, feminism, and post-modernism. Fulfills general education requirement: Writing Process. Liberal Studies Area 1 (History). 3 credits.

**AMS 225. Democracy in America.** This course will explore both the historical origins and development of the cultural ideal of democracy in the United States. By focusing on the cultural ideal of democracy, it will seek to understand the impact and meaning of democracy in America beyond that of political institutions alone. It will include readings and discussions in history, literature, politics, and cultural anthropology. Fulfills general education requirement: Liberal Studies Area 1 (History). 3 credits.

**AMS 229. Culture and Conflict in Modern America.** An examination of the social, political, economic and cultural upheaval of the 1960s and 1970s in the historical context. Fulfills general education requirement: Writing Process. Social Diversity Studies. 3 credits. [This course is cross-listed with PHL 229]

**AMS 280. Gender and Sexual Minorities in America Culture.** This course explores the lives of those individuals living with a lesbian, gay, bisexual, transgender, or queer identity (LGBTQ) and the relationship these individuals have with those around them. Exploration of the historical and contemporary implications of living with an LGBTQ identity, how these identities develop, the struggle for civil rights and legal protections, and how various factors such as the AIDS crisis, the media, religion, and others impact LGBTQ persons will also be explored. Fulfills general education requirement: Social Diversity Studies. 3 credits.

**AMS 311. American Science and Technology.** A study of American science and technology and their interrelations with economic, cultural, political and intellectual developments. Fulfills general education requirement: Disciplinary Perspectives. Prerequisite: Any laboratory science course. 3 credits.

**AMS 328. Film and the American Identity.** This team-taught, interdisciplinary course will critically examine how films reflect, construct, and question the dominant image and understanding of the American identity. Fulfills general education requirement: Disciplinary Perspectives. Prerequisite: Junior or senior standing. 4 credits.

**AMS 340. One Nation Under God?** This course will explore the relationship between religion and politics in the United States. It will include an examination of the role religion played in the founding vision of our nation's democracy, as well as the important separation between church and state that has been achieved over the course of our nation's history. With this historical backdrop in mind, special emphasis will then be given to the ascendancy of the religious right in recent electoral politics. Fulfills general education requirement: Liberal Studies Area 1 (History). 3 credits. [This course is cross-listed with REL 340]

**AMS 362. Multiculturalism and the American Identity.** This class offers you a chance to familiarize yourself with the variety of ethnic, racial, gender, and sexual groups and identities in the U.S. You will gain or enhance your intellectual framework for understanding and appreciating diversity. It also will prepare you to survive and thrive in our complex and challenging world. The course relies on history, literature, and cultural studies and will be challenging but also fun. Fulfills general education requirement: Social Diversity Studies. 3 credits.

### *Courses in Art & Art History*

**ART 103. Visual Thinking.** This course introduces concepts and skills that are essential for artists, art historians, and art educators. The focus is on building foundational principles (such as the visual elements in works of art) and studio art methodologies (such as the creative process, problem solving, and critiques). Students in the course will work individually and collaboratively on a variety of studio projects, will undertake a semester-long creative journaling project, visit galleries and museums in the region, and interact with visiting professional artists and art historians. Prerequisite: Limited to art and art history majors and minors. 3 credits.

**ART 112. Western Art I: Prehistoric to Medieval.** An introduction to art and architecture from the ziggurats of Mesopotamia and the pyramids of dynastic Egypt to the temples of ancient Greece and Rome, the mosaics of Byzantium to the illuminated manuscripts and soaring cathedrals of medieval Europe. Each artwork and architectural structure is situated within its historical, social, economic, religious, and cultural context. Fulfills general education requirement: Liberal Studies Area 5 (Literature and Fine Art). 3 credits.

**ART 114. Western Art II: Renaissance to Modern.** Beginning with the rediscovery of antiquity and concluding with rise of modernity, this course examines the rapid transformation of Western art and architecture. Key stylistic movements include the Renaissance, Baroque, Rococo, Romanticism, Neoclassicism, Realism, Impressionism, Post-Impressionism, Cubism, Dada and Surrealism. Each artwork and architectural structure is situated within its historical, social, economic, religious, and cultural context. Fulfills general education requirement: Liberal Studies Area 5 (Literature and Fine Art). 3 credits.

**ART 116. Non-Western Art: Africa to Oceania.** An introductory survey course that focuses on the history, development, and cultural influences of non-Western art. The course will examine the traditions of art and architecture from various regions, including Africa, Arabia, India, China, Japan, the Americas, and Oceania. Geographically, the course moves from Africa through the Middle East and into central Asia, extending both south and east. The course then continues across the Pacific to examine the native North American region and the cultures within South America, including Mesoamerican and Andean. The course finishes with cultures on the western Pacific Rim, including the Australian Aboriginal and the New Zealand Maori. Fulfills general education requirement: Foreign Studies. 3 credits.

**ART 205. Drawing I: Material and Form.** The primary goal of this course is learning to draw as a way of seeing and recording visual information from the world around us. Students are trained in the techniques of sighting, measuring, and perspective by drawing from objects, interior spaces, and human form. Assignments also require students to create images independently from a variety of sources, in addition to working in a drawing journal for the duration of the course. Charcoal, graphite, pastel, and ink are the primary media. 3 credits.

**ART 209. Sculpture I: Material and Form.** This course focuses on the principles of three-dimensional design and the properties of various sculptural materials, including plaster, clay, metal, and wood. Students learn techniques of modeling, carving, mold-making, metalworking, and assemblage through a variety of projects in which individual ideas are explored, executed, and refined. 3 credits.

**ART 211. Darkroom Photography.** The technical, aesthetic, and conceptual elements of photography as a contemporary art form are the basis of this course. Students are introduced to the mechanics of the Single Lens Reflex camera, processes of film development and black-and-white printing, compositional and aesthetic principles, and thematic explorations of subject matter. Issues of photographic history and contemporary photography are also examined. SLR camera with manual mode required. 3 credits.

**ART 214. History of Photography.** This course covers the history of photography with emphasis on the aesthetic elements of traditional and contemporary work. The significance of technical developments, photographic processes, and photographic criticism is discussed. It provides a contextual study of photography, not only as an art form but as a social commentary on culture. Content includes the history of the photography from the early 19th century to the present, including the introduction of color, photography as a form of social documentation, Modernist and Postmodernist approaches to the medium, photojournalism, and the use of photography within popular culture. Fulfills general education requirement: Writing Process. Liberal Studies Area 5 (Literature and Fine Art). 3 credits.

**ART 217. Drawing II: The Human Form.** Emphasizing human anatomy and movement, this course teaches important figurative skills for the aspiring artist, illustrator, or art teacher. Important components include proportion, light and shadow, and thematic development in addition to expressive use of various drawing media. Historical and contemporary figurative art is used to illuminate and inspire the development of individual approaches to drawing. Prerequisite: ART 205 or by permission. 3 credits.

**ART 219. Painting I: Color and Form.** This course introduces the physical, visual, and conceptual properties of painting through a variety of projects created in the medium of oil paint. Students learn concepts of color space, paint weight, and pictorial structure by undertaking paintings in genres such as still life, self-portraiture, landscape, and interior. Issues from the history of painting are used to explore the philosophical underpinnings of the medium. Prerequisite: ART 103 or 205. 3 credits.

**ART 221. Painting II: Water-Based Media.** This course explores the unique properties of wet media such as acrylic, gouache, ink, and watercolor. Individual development is emphasized through projects designed to both refine representational ability and expand the expressive parameters of painting. Prerequisite: ART 103 or 205. 3 credits.

**ART 223. Ceramics I: Material and Form.** Students explore a number of essential ceramic techniques, such as pinch-, coil-, and slab-construction, wheel-throwing, and a range of low-temperature surface treatments. The course focuses on fundamental principles of sculptural and functional design, with reference to ceramic history and contemporary uses of the medium. 3 credits.

**ART 225. Printmaking.** In this course students experience a variety of techniques and approaches from the history of printmaking, including relief printing and intaglio, while exploring contemporary graphic aspects of the medium such as hand-made posters and monotypes. Prerequisite: ART 103 or 205. 3 credits.

**ART 231. Digital Photography.** This course introduces students to the foundations of digital photography as an art form. Technical aspects, including lighting, shutter speed, and composition, are developed based on examples from historical and contemporary photography. A variety of subjects are photographed and processed using computer software, with an emphasis on the development of personal motifs and approaches to the art of photography. Digital Single Lens Reflex camera required. 3 credits.

**ART 305. Drawing III: Illustration.** Drawing as a way of telling stories is the focus of this course, which builds upon representational skills in the creation of visual narratives suitable for aesthetic and commercial applications. Both the history of drawing and contemporary illustration are incorporated as sources for individual development. Prerequisite: ART 205 or 217. 3 credits.

**ART 309. Pastel.** This course introduces students to the visual and tactile properties of pastel and explores the expressive potential of the medium through a variety of techniques, from non-directional mark-making to edge-building. Attention is paid to the history of pastel and to basic rules of conservation and framing. Prerequisite: ART 205 or 217. 3 credits.

**ART 311. Photography II: Concept and Technique.** This course will build upon established principles of composition, light, and technique using film-based and digital photography. Rather than choosing one medium over the other, students will experiment with both film and digital photography, exploring connections between the two and establishing a personal style or approach through one or the other (or both). Topics may include narrative, portraiture, and the development of a personal visual approach to creating images. Prerequisites: ART 211 or ART 231. 3 credits.

**ART 312. Renaissance Art.** Focusing on the late thirteenth to the end of the sixteenth century, this course offers a comprehensive survey of the major monuments, themes, and developments of Renaissance art in Europe. Works by Giotto, Van Eyck, Brunelleschi, Botticelli, Dürer, Michelangelo, Raphael, and Titian, among others, are examined. Fulfills general education requirement: Writing Process. Liberal Studies Area 5 (Literature and Fine Art). Prerequisites: ART 112 or ART 114. 3 credits.

**ART 315. Sculpture II: Material and Concept.** This course offers an intensive exploration of three-dimensional object making, extending beyond fundamental techniques to more advanced areas of development within the fields of contemporary art and design. Themes include the body, the environment, and performance. Prerequisites: ART 209 or by permission. 3 credits.

**ART 316. Baroque Art.** This course is a pan-European survey of baroque art and architecture, focusing on artists working in Italy, France, Spain, England, Flanders, and the Dutch Republic. Artworks by Caravaggio, Bernini, Borromini, and Velázquez in southern Europe, and Rubens, Rembrandt, Vermeer, Poussin, and Christopher Wren in Northern Europe, will be highlighted. Students explore such issues as patronage, stylistic difference, the interconnection of art and religion, and the changing political climate of Europe. Fulfills general education requirement: Writing Process. Liberal Studies Area 5 (Literature and Fine Art). Prerequisite: ART 112 or ART 114. 3 credits.

**ART 319. Painting III: Concept and Technique.** In this course students continue the development of artistic skills and conceptual approaches to painting. Projects include portraiture, abstraction, and the development of a painted series in which a theme or motif is used as the basis for a consistent group of paintings. Emphasis is on process, technique, and individual conceptual investigation. Prerequisites: ART 219 or 221. 3 credits.

**ART 320. Art and Revolution: 1776 to 1863.** Covering the period from the American Revolution in 1776 to the controversial Salon des Refusés of 1863, this course examines the art of Europe and the North America as it undergoes turbulent cultural change. Cataclysmic events such as the American and French Revolution, the economic and technological changes wrought by the Industrial Revolution, and the various revolutions in thought and politics, such as The Enlightenment and the rise of Marxism, emerge as key driving agents in the transformation of art and architecture during the period. Art movements under examination include Neoclassicism, Romanticism, Realism, and Impressionism. Fulfills general education requirement: Writing Process. Liberal Studies Area 5 (Literature and Fine Art). Prerequisites: ART 112 or ART 114. 3 credits.

**ART 323. Ceramics II: Material and Concept.** This course extends the art medium of ceramics through the development of more advanced skills and ideas. Students pursue an individual style in various projects by developing new concepts and techniques. Students are required to seek out influences through research, and to reference historical and contemporary examples in their own work. Critiques at different stages of each project maximize the potential of each artwork. Students also play a role in the organization and management of the ceramics studio, learning to perform important functions from recycling clay to firing kilns. Prerequisite: ART 223. 3 credits.

**ART 328. Modern Art.** An overview of modern art and architecture from the 1890s to the rise of postmodernism in the 1970s, including important stylistic movements such as Symbolism, Art Nouveau, Cubism, Dada and Surrealism, Abstract Expressionism, Minimalism, Pop Art, and Conceptual Art. The focus will be on the ideas, works, and critical reception of specific artists, widened to include issues of science and technology, race and gender, and related developments in politics and literature. Fulfills general education requirement: Writing Process. Liberal Studies Area 5 (Literature and Fine Art). Prerequisite: ART 114. 3 credits.

**ART 330. Contemporary Art: 1980 to Present.** This course explores the cultural and theoretical underpinnings of the contemporary art world. Focusing on the past three decades, the course examines those key elements that define art today, such as the art market, the media, controversy and debate, new modes of practice, and the rising context of the global. By tracing the diverse narratives that inform the art world, the student will understand how contemporary art and architecture generate meaning, and what methods and theories are employed in critiquing emerging forms. Fulfills general education requirement: Liberal Studies Area 5 (Literature and Fine Art). Prerequisite: ART 114. 3 credits.

**ART 332. Art and the Moving Image.** This course examines the interrelationship of art history and film studies from the origins of photography and cinema in the 1800s to the present day. Specific examples of filmmakers and artists are examined, as well as various art movements including Cubism, Surrealism, and Postmodernism. Fulfills general education requirement: Liberal Studies Area 5 (Literature and Fine Art). Prerequisite: ART 114. 3 credits.

**ART 340. Museum Studies.** This course broadly examines the history, principles, and practices of museums. Though much of the focus is on museums of art, students investigate issues related to all museums, including the development, care, and use of museum collections; the function, management, and operation of museums; curatorial methods and exhibition design; and research and catalogue writing. Prerequisites: ART 112 or ART 114. 3 credits.

**ART 351. Color and Culture.** This course immerses students in a thematic investigation of color in human culture from ancient times to the present. Using case studies from the histories of art, literature, and philosophy, students examine the role color plays in our understanding of the world, particularly in relation to economic, moral, and spiritual value systems. Fulfills general education requirement: Writing Process. Disciplinary Perspectives. 3 credits.

**ART 404. Art History: Theory and Method.** This course explores the various analytical tools available to those working within the discipline of art history. The course will explore those key methodologies that have been employed in the interpretation and description of art since the 19th century, which include formal analysis, iconography, Marxism, feminism, biography and autobiography, psychoanalysis, structuralism, race and gender, and new methods from ecology and other emerging environmental fields. Prerequisites: ART 112 and 114. 3 credits.

**ART 405. Advanced Studio.** For junior or senior students who have completed foundation and intermediate-level courses in studio art and are ready to work independently while receiving faculty guidance and feedback. Working in a medium of one's choice (for example, ceramics or painting or photography), students create and present a resolved body of work. The course can be repeated so that students can undertake different creative projects or work continuously on a sustained project, either one of which is essential for future work as an artist or art educator. Prerequisite: Junior or Senior standing or by permission; limited to art and art history majors and minors. 3 credits.

**ART 406. Portfolio & Professional Development.** This course prepares art and art history students for future professional work in the visual arts by providing developmental guidance at the critical junior or senior years. Students will explore the various opportunities open to studio artists, art historians, and art educators. Central to the class is the development of a refined art portfolio and/or writing sample that can be utilized in various vocational art fields and within the graduate school application process. Prerequisite: Junior or Senior standing or by permission; limited to art and art history majors and minors. 3 credits.

#### *Courses in Biochemistry and Molecular Biology*

**BCMB 401. Molecular Biology.** Gene structure, function and regulation at the molecular level in prokaryotic and eukaryotic organisms. Recombinant DNA techniques (genetic engineering) and gene sequencing are covered in detail. Prerequisite: Three semesters of chemistry and BIO 201 or permission of the instructor. 4 credits.

**BCMB 421. Biochemistry I.** The study of the chemistry of the molecules of life. Topics covered include: the applications of pH & buffers, amino acid chemistry, protein structure & function, the thermodynamics of protein folding, protein purification & analysis, ligand binding, enzyme mechanisms and enzyme kinetics. Prerequisites are CHM 214, 216, and 312, or permission. 3 credits.

**BCMB 422. Biochemistry II.** The continued study of the chemistry of the molecules of life. Topics covered include carbohydrate chemistry & metabolism, coenzyme mechanisms, electron transport & oxidative phosphorylation, lipid chemistry, membranes, lipid metabolism amino acid metabolism and the integrated function of intermediary metabolism & its metabolic control. Prerequisites: CHM 214, 216, and 312 or permission. 3 credits.

**BCMB 430. Biochemistry Laboratory.** Investigations of the properties and functions of proteins, nucleic acids, carbohydrates and lipids. Prerequisites: CHM 214, 216. 1 credit.

**BCMB 499. Biochemistry Seminar.** Readings, discussions, and reports on special topics in biochemistry. 1 credit.

#### *Courses in Biology*

**BIO 101. Human Biology.** The human organism is utilized as the primary focus to elucidate physiological principles for non-science majors. Topics include nutrition, homeostasis, major organ systems, immunity, and evolution. Laboratory exercises include sensory physiology, respiration, blood pressure, exercise physiology and ECG. Fulfills general education requirement: Liberal Studies Area 3 (Natural Science). 4 credits.

**BIO 102. Human Heredity.** This course is intended for the non-science major. Although the major emphasis of this course is on the inheritance of traits in humans, topics ranging from basic cell reproduction through gamete production and early developmental stages are also covered. Classical genetics, in both humans and other organisms, including both chromosomal and gene genetics, as well as population genetics, molecular genetics and application of genetics to biotechnology and genetic engineering are discussed. The laboratory is intended to give the student "hands-on" experience in making observations, performing experiments and working with scientific equipment. Topics to be covered in the laboratory include studying prepared slides, performing genetic crosses, activating genes in bacteria, isolating DNA and learning about DNA fingerprinting. Fulfills general education requirement: Liberal Studies Area 3 (Natural Science). 4 credits.

**BIO 103. Environmental Science.** Designed for non-science majors, the course serves as an introduction to ecological principles and their applications to understanding the causes and current status of environmental problems. Options for dealing with these problems are evaluated. Possible topics for discussion are overpopulation, food and water resources, ozone depletion, global warming, deforestation, acid rain, biodiversity, erosion, loss of wetlands, energy sources, pollution, eutrophication and waste disposal. Laboratory exercises are designed to illustrate ecological concepts presented in lecture. Fulfills general education requirement: Liberal Studies Area 3 (Natural Science). 4 credits.

**BIO 111. General Biology I.** A rigorous study of basic biological principles, designed for science majors. Topics emphasized include basic biochemistry, cell biology, genetics, embryology, histology, and evolution. Fulfills general education requirement: Liberal Studies Area 3 (Natural Science). Must be taken concurrently with BIO 113. 3 credits.

**BIO 112. General Biology II.** This course, also rigorous and designed for science majors, covers concepts in animal and plant physiology, botany, and ecology. Fulfills general education requirement: Liberal Studies Area 3 (Natural Science). Prerequisite: BIO 111/113. Must be taken concurrently with BIO 114. 3 credits.

**BIO 113. General Biology I Laboratory.** Laboratory exercises include protein quantification, enzyme kinetics, isolation and identification of plant pigments, microscopy, and histological techniques. Fulfills general education requirement: Liberal Studies Area 3 (Natural Science). Must be taken concurrently with BIO 111. 1 credit.

**BIO 114. General Biology II Laboratory.** Laboratory exercises include invertebrate dissections, sensory physiology, renal physiology, plant development in angiosperms, stomate response to environmental changes, and an ecological field study of predator-prey interactions. Fulfills general education requirement: Liberal Studies Area 3 (Natural Science). Prerequisite: BIO 111/113. Must be taken concurrently with BIO 112. 1 credit.

**BIO 201. Genetics.** A study of the principles, mechanisms and concepts of classical, molecular, and population genetics. The laboratory stresses key concepts of genetics utilizing both classical and molecular approaches. Laboratory exercises include analysis of nucleic acids, genetic crosses, and studies of bacteria and plasmids. Prerequisites: a C- (1.67) average in BIO 111/113 and BIO 112/114; one year of chemistry or permission. 4 credits.

**BIO 212. Animal Behavior.** A study of the basic concepts of invertebrate and vertebrate behavior with emphasis on the development, genetics, physiology and evolution of behavior. Laboratory exercises include ethogram construction, avian foraging, aggressive display analysis and estrous cycle regulation. Prerequisite: a C- (1.67) average in BIO 111/113 and BIO 112/114. 4 credits.

**BIO 221. Mammalian Anatomy.** Comparative anatomy with special attention to the structure and function of mammalian systems and special references to humans. Intensive laboratory work involves dissections and demonstrations using the cat as a model. Prerequisite: a C- (1.67) average in BIO 111/113 and BIO 112/114. 4 credits.

**BIO 222. Human Physiology.** The design of this course is intended to impart an understanding of the basic concepts of human physiology with emphasis on neuromuscular, cardiovascular, and endocrine physiology. Laboratory exercises place emphasis on effective experimental designs and data analysis in the study of physiological mechanisms. Lab exercises cover such topics as muscle contraction measurements, spirometry, and ECG analysis. Does not fulfill a biology major requirement. Prerequisite: a C- (1.67) average in BIO 111/113 and BIO 112/114. 4 credits.

**BIO 231. Neurobiology.** This course takes an in-depth look at the biological and physiological processes that give rise to complexity of the nervous system and ultimately allow for complex function. It examines the biology of vertebrate nervous systems, with particular emphasis on the human nervous system. Topics include cellular and molecular biology of the neuron, neuroanatomy, neurophysiology, nervous system development and plasticity, mechanisms of learning and memory, and sensory and motor systems. Prerequisite: a C- (1.67) average in BIO 111/113 and BIO 112/114. 4 credits.

**BIO 302. Plant Diversity.** The development and diversity of fungi, algae and land plants and the relationships between them. Field and laboratory work familiarizes the student with the structure and reproduction of algae and plants and with the identification and pollination of flowering plants in the local flora. Prerequisite: a C- (1.67) average in BIO 111/113 and BIO 112/114. 4 credits.

**BIO 304. Developmental Biology.** An organismal and molecular approach to the study of animal development using typical invertebrate and vertebrate organisms. The laboratory includes the study of slides as well as experiments on fertilization, regeneration and metamorphosis. Fulfills general education requirement: Writing Process. Prerequisite: a C- (1.67) average in BIO 111/113 and BIO 112/114, and BIO 201, or permission of the instructor. 4 credits.

**BIO 305. Cell and Tissue Biology.** A study of cell ultrastructure and the microscopic anatomy of vertebrate tissues, including the structure and function of membranes and organelles, cell motility and excitability, and vertebrate tissue similarities and specialization in relation to function. Laboratory includes the preparation and staining of sections using selected histochemical and histological procedures as well as a variety of microscopic techniques. Prerequisite: a C- (1.67) average in BIO 111/113 and BIO 112/114. 4 credits.

**BIO 306. Microbiology.** A study of the morphology, physiology and biochemistry of representative microorganisms. The laboratory emphasizes basic bacteriological techniques and procedures. Prerequisite: a C- (1.67) average in BIO 111/113 and BIO 112/114; three semesters of chemistry or permission. 4 credits.



**BIO 307. Plant Physiology.** A study of the functioning of plants, with emphasis on vascular plants. Fulfills general education requirement: Writing Process. Prerequisite: a C- (1.67) average in BIO 111/113 and BIO 112/114; three semesters of chemistry or permission. 4 credits.

**BIO 312. Ecology I.** An examination of the basic concepts of ecology with extensive laboratory work and field experiences in freshwater and terrestrial ecosystems. Fulfills general education requirement: Writing Process. Prerequisite: a C- (1.67) average in BIO 111/113 and BIO 112/114. 4 credits.

**BIO 322. Vertebrate Physiology.** A study of the principles of vertebrate body function, with emphasis on the mechanisms by which cells and organs perform their functions and the interactions of the various organs in maintaining total body function. Fulfills general education requirement: Writing Process. Prerequisite: a C- (1.67) average in BIO 111/113 and BIO 112/114; one semester of chemistry or permission. 4 credits.

**BIO 323. Introduction to Immunology.** An introduction to the anatomical, physiological and biochemical factors underlying the immune response. The course begins with a discussion of non-specific immunity, cellular immunity and antibody-mediated immune responses. The course then moves into a study of contemporary immunological topics which are discussed with respect to major research papers in each area. Topics include autoimmunity, histocompatibility, immunogenetics and acquired immune deficiencies. Prerequisites: a C- (1.67) average in BIO 111/113 and BIO 112/114; BIO 201; CHM 111, 113 or equivalent; or permission of the instructor. 4 credits.

**BIO 324. Invertebrate Physiology.** A study of many of the invertebrate phyla, concentrating on the physiological mechanisms controlling movement, metabolism, information, and control and reproduction. Fulfills general education requirement: Writing Process. Prerequisite: a C- (1.67) average in BIO 111/113 and BIO 112/114. 4 credits.

**BIO 402. Evolution.** This course is an introduction to organic evolution and evolutionary mechanisms/processes including a study of the origins, history, and evidence supporting evolution and evolutionary concepts. Examples of topics to be covered include history of evolution, classification and phylogeny, biological diversity, variation and genetic drift, natural selection, phenotypic traits, speciation, reproductive success, evolution and development, and macroevolution. Evolution will be examined from several perspectives, from molecular to ecological levels, and over different time scales. The course will cover both plant and animal evolution. Laboratory exercises will be drawn from the online publication, Spreadsheet Exercises in Ecology and Evolution. Prerequisite: a C- (1.67) average in BIO 111/113 and BIO 112/114, and BIO 201. 4 credits.

**BIO 404. Electron Microscopy.** An introduction to the use of techniques for scanning and transmission electron microscopic studies. Through laboratory experience the students will learn the proper use, application and limitations of the appropriate instruments. Prerequisite: a C- (1.67) average in BIO 111/113 and BIO 112/114, and BIO 305, or permission of the instructor. 4 credits.

**BIO 409. Ecology II.** An intensive study of ecosystem ecology, examining the interactions of biotic and abiotic factors within freshwater and terrestrial ecosystems. This course will examine recent research to demonstrate how ecosystems respond to anthropogenic influences. Prerequisite: a C- (1.67) average in BIO 111/113 and BIO 112/114. 4 credits.

**BIO 499. Seminar.** Each senior student is required to do independent library research on an assigned topic and to make an oral presentation to the biology faculty and students. May be taken twice for credit. Prerequisite: a C- (1.67) average in BIO 111/113 and BIO 112/114. 1-2 credits.

### *Courses in Business*

**BUS 130. Modern Business Organizations.** The course focuses on understanding the composition of modern business organizations with respect to the value chain they are a part of, relationships with other organizations in the value chain, and the functions and processes organizations use to create and deliver value to customers, stakeholders, and society. The course includes an introduction to key business communication software. Prerequisites: freshman or sophomore standing only or by permission. 3 credits.

**BUS 160. Computer Applications.** An extensive introduction to spreadsheet, database, and Internet applications software as used in business. Through hands-on classroom instruction, computer-aided learning, and course project assignments, students learn the use of the major analytical software packages that are commonly used in business. The class teaches the basic principles of using this software to solve problems and to enhance critical thinking skills. 3 credits.

**BUS 215. Health Care Finance.** An examination of the financial issues of health and medical care to determine how to provide the best health care to the most people in a cost-effective manner. Examination of the principal elements of health care, including the physician, the hospital, and the pharmaceutical industry, as well as the influence of government and the insurance industry. Prerequisites: ECN 101, or permission of the instructor. 3 credits.

**BUS 230. Principles of Management.** A study of the principles of management and leadership as they apply to the effective and efficient operation of for-profit and not-for-profit organizations regardless of their size. Emphasizes the organization's structure, leadership, interpersonal relationships, managerial functions, and methods for assessment and control. Prerequisite: BUS 130 or MBS 371 (or concurrent registration in MBS 371), or, for returning adult, degree completion students, and health care management students, significant work experience. Accounting, business administration, and health care management majors need a cumulative GPA of 2.00 or greater in all foundation courses completed to date. 3 credits.

**BUS 280. Financial Fraud: Prevention and Detection.** This course explores the pervasiveness, causes, and types of financial crimes currently being encountered. Using text, discussion, problems, and case studies, the course identifies methods of fraud detection, investigation, and prevention. Prerequisites: ACT 161, 162. 3 credits. [This course is cross-listed with ACT 280]

**BUS 285. Organizational Communications.** The development of writing, speaking, and listening skills for business management. Fulfills general education requirement: Writing Process. Prerequisite: ENG 111 and 112. Majors in accounting, business administration, and health care management need a cumulative GPA of 2.00 or greater in all foundation courses completed to date. 3 credits.

**BUS 340. Principles of Marketing.** An overview of marketing from the management perspective. Topics include marketing strategies, marketing research, consumer behavior, selecting target markets, developing, pricing, distributing and promoting products and services and non-profit marketing. Prerequisite: Junior standing or permission. 3 credits.

**BUS 341. Consumer & Organizational Buying Behavior.** This course focuses on the analysis of the factors affecting the purchasing decision in the marketplace and the application of behavioral and social science concepts to the study of individual and group buying behavior. The course emphasizes the use of this understanding in making marketing mix decisions. Prerequisite: BUS 230 and BUS 340, or permission of the instructor. 3 credits.

**BUS 350. Organizational Behavior.** A detailed study of the theories and models of organizational behavior and development, with emphasis on the practical application of these models in the workplace to improve individual, group and organizational performance. Prerequisites: Junior standing and BUS 130, or permission. 3 credits.

**BUS 361. Principles of Finance.** A study of financial management covering analysis of asset, liability and capital relationships and operations; management of current assets and working capital; capital planning and budgeting; capital structure and dividend policy; short and intermediate term financing; internal and external long term financing; and other financial topics. Prerequisites: ACT 162; ECN 101,102. 3 credits.

**BUS 362. Investments.** An analysis of investment and its relation to other economic, legal and social institutions. The course includes discussion of investment principles, machinery, policy, management investment types and the development of portfolios for individuals and institutions. Prerequisite: BUS 361, BUS 461, ECN 312, or ASC 385; or permission of the instructor. 3 credits.

**BUS 371. Business Law I.** Elementary principles of law relating to the field of business. The course covers contracts, government regulation of business, consumer protection, bankruptcy, personal property, real estate, bailments, insurance and estates. 3 credits.

**BUS 372. Business Law II.** Elementary principles of law relating to business. Includes agency, employment, commercial paper, security devices, insurance, partnerships, corporation, estates and bankruptcy. 3 credits.

**BUS 374. Personal Selling and Sales Management.** The study of personal selling as a communication process and the management of the personal selling force. Emphasis is placed upon the development, implementation and evaluation of the sales presentation; and upon the role of the sales manager in staffing, compensating, motivating, controlling and evaluating the sales force. Effective oral and written communication is stressed. Prerequisite: BUS 340. 3 credits.

**BUS 376. International Business Management.** Studies management techniques and procedures in international and multinational organizations. Prerequisite: BUS 130, 340. 3 credits.

**BUS 381. Entrepreneurship and Small Business Management.** Upon completion of this course, students will understand how to recognize a entrepreneurial or small business opportunity, write a business plan, read and develop pro forma financial statements, address financing issues, protect intellectual property rights, market a new venture, and develop a strategy for capturing the equity growth of the enterprise for the initial investors. Students will also develop an understanding of the leadership and management issues associated with sustaining a small business from one generation to another. Prerequisites: ACT 162, and either BUS 130, MBS 371, or BUS 230, or permission of the instructor. 3 credits.

**BUS 383. Management Science.** An introduction to the techniques and models used in management science. Topics include forecasting, inventory control models, linear programming, product scheduling, and simulation. Prerequisites: MAS 150 and MAS 170 with a minimum grade of C- or better; BUS 130, ACT 161, 162. 3 credits.

**BUS 400. Internship.** Practical and professional work experience related to the student's career interests, involving both on-site and faculty supervision. May be repeated for credit (up to 12 credits of internship may be counted toward the degree). Prerequisites: 2.75 GPA, permission of the chairperson, completion of department's application form. Generally limited to juniors and seniors. 1-12 credits.

**BUS 420. Human Resource Management.** This course examines the problems in effectively recruiting, selecting, training, developing, compensating and disciplining human resources. It includes discussions on both equal employment opportunity and labor-management relations. Prerequisite: BUS 130. 3 credits.

**BUS 450. Business Ethics and Social Responsibility.** This course examines the major ethical issues, social responsibilities, and ethical dilemmas facing business and business managers in today's global environment. Students develop an understanding of the difference between what is legal and what is ethical and clarify their approach to ethical issues. Prerequisites: BUS 130, BUS 230 or permission. 3 credits.

**BUS 460. Management Information Systems.** Examines data sources and the role of information in management planning, operations and control in various types of business environments. Treats information as a key organization resource parallel to people, money, materials and technology. Prerequisite: BUS-130, ACT 162 3 credits.

**BUS 461. Corporate Finance.** The course is designed to meet the Society of Actuaries (SOA) standards for Validation through Educational Experience (VEE) in the area of corporate finance. The course covers topics including defining the core concepts of corporate finance including: financial instruments, sources of capital and their costs, dividend policy, capital structure, capital budgeting, financial performance assessment, exchange rate risk, hedging, and arbitrage. Prerequisite: BUS 361 or ASC 385. 3 credits.

**BUS 485. Strategic Management.** A capstone course to study administrative processes under conditions of uncertainty, integrating prior studies in management, accounting and economics. Uses case method and computer simulation. Fulfills general education requirement: Writing Process. Prerequisite: BUS 130, 340, 361 and senior standing. Designed for last semester seniors. Course requires business casual or business professional dress at all class sessions. Underclassmen admitted with permission of instructor and Chair. 3 credits.

**BUS 487. Health Care Management.** A capstone course to study the administrative processes of America's health care industry including institutional infrastructure, governance systems, financial systems, personnel systems, quality controls, nursing and clinical services, and marketing. The course integrates prior study in health care, management, accounting, and economics. Students will develop problem solving skills and an appropriate management style. Prerequisite: Senior standing or permission. 3 credits.

### *Courses in Chemistry*

**CHM 111. Principles of Chemistry I.** An introduction to chemistry for the science major. First semester topics include atomic and molecular structure, chemical reactions, calculations involving chemical concentrations, gas laws and bonding. Fulfills general education requirement: Liberal Studies Area 3 (Natural Science). Prerequisite: one year of high school chemistry or permission. Corequisite: CHM 113 or CHM 115. 3 credits.

**CHM 112. Principles of Chemistry II.** A continuation of first semester. Topics include kinetics, acids and bases, equilibrium, oxidation- reduction chemistry, thermodynamics, electro- chemistry and nuclear chemistry. Fulfills general education requirement: Liberal Studies Area 3 (Natural Science). Prerequisite: CHM 111. Corequisite: CHM 114 or CHM 116. 3 credits.

**CHM 113. Introductory Laboratory I.** Laboratory course to accompany 111. Experiments cover stoichiometry, gas laws, quantitative analysis, equilibrium, electrochemistry, chemical synthesis and the use of computers for collecting data. Students are introduced to instrumentation including infrared, UV-visible, and atomic absorption spectrometers. Fulfills general education requirement: Liberal Studies Area 3 (Natural Science). Co-requisite: CHM 111. 1 credit.

**CHM 114. Introductory Laboratory II.** Second semester laboratory course to accompany 112. Experiments cover stoichiometry, gas laws, quantitative analysis, equilibrium, electrochemistry, chemical synthesis and the use of computers for collecting data. Students are introduced to instrumentation including infrared, UV-visible, and atomic absorption spectrometers. Fulfills general education requirement: Liberal Studies Area 3 (Natural Science). Corequisite: CHM 112. 1 credit.

**CHM 115. Techniques of Chemistry I.** Extended projects involving the synthesis of inorganic and organic compounds that require the development of procedure from published literature methods. The prepared compounds are then analyzed using quantitative analytical techniques, as well as introductory spectroscopic techniques. Fulfills general education requirement: Liberal Studies Area 3 (Natural Science). Prerequisite: major in chemistry or biochemistry and molecular biology. Co-requisite: CHM 111. 1 credit.

**CHM 116. Techniques of Chemistry II.** Second semester of extended projects involving the synthesis of inorganic and organic compounds that require the development of procedure from published literature methods. The prepared compounds are then analyzed using quantitative analytical techniques, as well as introductory spectroscopic techniques. Fulfills general education requirement: Liberal Studies Area 3 (Natural Science). Prerequisite: major in chemistry or biochemistry and molecular biology. Corequisite: CHM 112. 1 credit.

**CHM 213. Organic Chemistry I.** An introduction to the principles of organic chemistry. The focus of the course is on the structure of organic molecules and how the structure of various functional groups affects their reactivity. The concepts of reactivity, structure and mechanism are applied to organic synthesis. Prerequisite: CHM 112. 3 credits.

**CHM 214. Organic Chemistry II.** Second semester of an introduction to the principles of organic chemistry. The focus of the course is on the structure of organic molecules and how the structure of various functional groups affects their reactivity. The concepts of reactivity, structure and mechanism are applied to organic synthesis. Prerequisite: CHM 112. 3 credits.

**CHM 215. Organic Laboratory I.** An introduction to the practice of classical organic chemistry and modern instrumental organic chemistry. The techniques of organic synthesis are taught along with instrumental methods including infrared, nuclear magnetic resonance and mass spectrometry. Prerequisite or corequisite: CHM 114 and CHM 213. 1 credit.

**CHM 216. Organic Laboratory II.** Second semester of an introduction to the practice of classical organic chemistry and modern instrumental organic chemistry. The techniques of organic synthesis are taught along with instrumental methods including infrared, nuclear magnetic resonance and mass spectrometry. Prerequisite or corequisite: CHM 214. 1 credit.

**CHM 222. Introductory Inorganic Chemistry.** The application of elementary principles of chemistry to provide a basis for understanding the physical and chemical properties of the elements. Topics include periodicity, acidity or basicity of metalcations and oxoanions, precipitation reactions, oxidation-reduction chemistry, and the structures of solids. Prerequisite: CHM 112. 3 credits.

**CHM 230. Inorganic Chemistry Laboratory.** Students will be exposed to a number of advanced synthetic methods including inert atmosphere manipulations, high vacuum and temperature dehydrations, mixed solvent crystallizations, and photochemical transformations. Fulfills general education requirement: Writing Process. Corequisite: CHM 222. 1 credit.

**CHM 305. Analytical Chemistry.** Topics for this course include statistical methods; activity and activity coefficients; chemical equilibria involving complex systems; volumetric analyses including acid/base, precipitation, redox, and complexometric titrations; principles of electrochemistry, potentiometry, electrogravimetry, coulometry, and voltametry. Prerequisites: CHM 112 and MAS 161. 3 credits.

**CHM 306. Instrumental Analysis.** Basic types of chemical instrumentation and their applications in analytical chemistry are examined. These include gas and liquid chromatography; infrared, UV-VIS, fluorescence, atomic absorption, and plasma emission spectrophotometry; nuclear magnetic resonance and mass spectrometry. Prerequisites: CHM 112 and MAS 161. 3 credits.

**CHM 307. Quantitative Analysis Lab.** Volumetric, spectrophotometric, and electrochemical methods are applied to the analysis of unknowns. Prerequisite or corequisite: CHM 305. 1 credit.

**CHM 308. Instrumental Analysis Lab.** Chemical instrumentation is utilized in method development, unknown determinations, and chemical analysis. Prerequisite or corequisite: CHM 306. 1 credit.

**CHM 311. Physical Chemistry I.** The study of chemical systems from a molecular perspective. Basic concepts of quantum chemistry applied to atomic and molecular structure. Thermodynamic laws and functions applied to mechanical, thermal, and material equilibrium in gases, liquids, and solids. Also included are electrochemical systems, as well as kinetic and transport processes occurring in gases, in solutions, and at solid surfaces. Prerequisites: CHM 112, MAS 162, and PHY 104 or 112. 3 credits.

**CHM 312. Physical Chemistry II.** Second semester of a study of chemical systems from a molecular perspective. Basic concepts of quantum chemistry applied to atomic and molecular structure. Thermodynamic laws and functions applied to mechanical, thermal, and material equilibrium in gases, liquids, and solids. Also included are electrochemical systems, as well as kinetic and transport processes occurring in gases, in solutions, and at solid surfaces. Prerequisite: CHM 311. 3 credits.

**CHM 321. Physical Laboratory I.** Experimental study of the principles of physical chemistry. Work involves spectroscopy (IR, UV/VIS, fluorescence, Raman, and NMR), calorimetry, refractometry, conductivity, and viscometry applied to atomic and molecular structure, thermodynamics, phase and reaction equilibrium, and chemical kinetics. Fulfills general education requirement: Writing Process. Prerequisite or corequisite: CHM 311. 1 credit.

**CHM 322. Physical Laboratory II.** Second semester of an experimental study of the principles of physical chemistry. Work involves spectroscopy (IR, UV/VIS, fluorescence, Raman, and NMR), calorimetry, refractometry, conductivity, and viscometry applied to atomic and molecular structure, thermodynamics, phase and reaction equilibrium, and chemical kinetics. Fulfills general education requirement: Writing Process. Prerequisite or corequisite: CHM 312. 1 credit.

**CHM 411. Advanced Inorganic Chemistry.** A study of bonding theories, molecular structure, spectroscopy and reaction mechanisms with special emphasis on transition metal complexes. Prerequisite: CHM 312. 3 credits.

**CHM 412. Advanced Physical Chemistry.** In-depth treatment of the experimental and theoretical aspects of chemical kinetics and reaction dynamics. Reactions occurring in the gas phase, in the solution phase, and at solid surfaces will be discussed, with examples being drawn from catalysis, environmental/atmospheric chemistry, and astrochemistry. Prerequisite or corequisite: CHM 312 or permission of the instructor. 3 credits.

**CHM 414. Advanced Organic Chemistry.** A study of advanced topics in the field of organic chemistry. The course covers mechanistic and synthetic chemistry with an emphasis on current and classical organic chemical literature. Prerequisites: CHM 214. 3 credits.

**CHM 421. Chemometrics.** An application of multivariate statistics to experimental design and data analysis. Topics include experimental design, pattern recognition, calibration, optimization, signal processing and peak resolution. Some familiarity with computers and chemical instrumentation is recommended. Prerequisite: CHM 112. 3 credits.

**CHM 510. Chemical Research.** Chemical research conducted under the supervision of a faculty member. This course introduces the students to the methods and analysis involved in research. A major written report and an oral presentation are required. May be repeated for credit. Prerequisites: CHM 308 and 321 and senior standing. 1-4 credits.

### *Courses in Computer Science*

**CSC 115. Programming for Applications.** Topics include algorithms, data types, graphical user interfaces, objects, event handlers, and database programming. This course does not prepare students for more advanced computer science courses, but it does satisfy the core requirement in computer programming for Digital Communications majors. We will use Visual Basic. 3 credits.

**CSC 131. Introduction to Programming (with Java).** Foundational aspects of computer programming. Algorithms and data; control structures; the design of small programs. Class and object basics. Uses the Java programming language. 3 credits.

**CSC 132. Computer Organization and Programming.** Introduces the design and organization of the major components of a modern computer: CPUs, memory, storage, and other related hardware. Continues the study of programming started in CSC 131 via programming projects related to the study of computer architecture. Prerequisite: CSC 131 or permission. 3 credits.

**CSC 216. Concepts of Networking and Database.** This course has three distinct segments: 1)principles of computer networks and the Internet, 2)database design concepts, and 3)network database applications. Hands-on. Take CSC 115 or CSC 131. 3 credits.

**CSC 231. Program Design I: C++ and Data Structures.** Begins the study of large-scale software systems. Introduces the C++ programming language and fundamental data structures like vectors, lists, and trees. Prerequisites: MAS 161 or MAS 111, and CSC 132 3 credits.

**CSC 232. Program Design II: OOP and Patterns.** A continuation of CSC 231. Applications of data structures, object-oriented programming, design patterns, and other techniques to the design and implementation of large software systems. Prerequisite: CSC 231 3 credits.

**CSC 331. Software Design I.** A survey of modern techniques for designing complex software systems. Investigates both programming techniques and processes. Includes substantial programming projects that continue in CSC 332. Prerequisite: CSC 232. 3 credits.

**CSC 332. Software Design II.** A continuation of CSC 331. Must be taken in the semester immediately following CSC 331. Prerequisite: CSC 331. 3 credits.

**CSC 441. Operating Systems.** Theory and practice of modern operating systems. Topics include memory management, file systems, scheduling, concurrency, distributed processes, and security. Prerequisites: CSC 282 and MAS 251. 3 credits.

**CSC 442. Networks.** Network design and implementation. Topics include layered network design, types of hardware, low-level protocols, packets, frames, routing, security, and so on. Prerequisites: CSC 232 and MAS 251. 3 credits.

**CSC 448. Databases.** The theory, structure and implementation, and application of modern database systems. Prerequisite: CSC 232. 3 credits.

**CSC 452. Artificial Intelligence.** An introduction to the field of AI. Topics include expert systems, goal-seeking algorithms, neural networks, genetic algorithms, computer vision, language recognition. Prerequisites: CSC 232 and MAS 251. 3 credits.

**CSC 481. Advanced Topics in Computer Science I.** Topics to be selected from current areas of interest and research in computer science. This course may be repeated for credit as topic changes. Prerequisites: CSC 232, MAS 251. 3 credits.

**CSC 482. Advanced Topics in Computer Science II.** Topics to be selected from current areas of interest and research in computer science. This course may be repeated for credit as topic changes. Prerequisites: CSC 232 and MAS 251. 3 credits.

### *Courses in Digital Communications*

**DCOM 099. Portfolio.** A formal collection of the student's completed work to be presented before the DCOM faculty and students as part of the student's formal request to take DCOM 400 (Internship). The portfolio must be both in print and in an appropriate electronic form, include a resume, and contain examples of the student's work in both their concentration and the core. Typically taken during the fall semester of junior year. Graded pass/fail. 0 credits.

**DCOM 100. Web Authoring.** This practical, hands-on course teaches how to use the authoring software Dreamweaver and HTML to create simple web pages and page layouts. Students will gain facility using web authoring software (Dreamweaver) and will be able to read and write effective, simple HTML code. It is a one-day-per-week, one-hour course that will emphasize completing daily assignments, in-class work, and quizzes. Corequisite: DCOM 130. 1 credit.

**DCOM 130. Principles of Information Design.** This class surveys the principles and practices of user-centered design (research/observation, design, prototyping, and usability testing), information design, information architecture, interaction design, interface design, and digital infrastructure. Website design will be introduced as a model for integrating the interdisciplinary components of the field of digital communications. Corequisite: DCOM 100. 3 credits.

**DCOM 200. Design Authoring.** This hands-on, one credit course teaches advanced uses for vector-based graphic authoring software (Illustrator) and layout authoring software (InDesign). Each class will meet once a week for one hour and require that students complete daily assignments, in class work, and quizzes. 1 credit.

**DCOM 210. Graphic Design.** An introductory studio/lecture course designed to increase visual literacy and vocabulary, develop design skills, and present the creative possibilities of the computer as an art-making and editing tool. 3 credits.

**DCOM 200. Design Authoring.** This hands-on, one credit course teaches advanced uses for vector-based graphic authoring software, such as InDesign. Each class will meet once a week for one hour and require that students complete daily assignments, in class work, and quizzes. 1 credit.

**DCOM 255. Fundamentals of Design.** An introduction to the fundamental elements of art and design. Students work with graphic symbols, theories of visual perception, principles of composition and color interaction in a variety of studio projects. 3 credits.

**DCOM 256. Digital Graphic Design.** The course will focus on blending the creative and technical aspects of developing electronic images. Students will apply traditional art methods and techniques to the electronic canvas. Additionally, the course will serve to provide a historical perspective of electronic imaging and examine the limitations and possibilities of working in the electronic medium. 3 credits.

**DCOM 265. E-Commerce.** An exploration of the important technologies related to doing business on the Internet. Topics include e-commerce, advertising, customer support, and business-to-business applications. Emphasis on how businesses implement these technologies, resource requirements, cost-to-benefit analysis. 3 credits.

**DCOM 285. Writing for Digital Media.** This course will provide students with the skills, theories of design and experience to design viable digital media projects that meet specific goals and target specific audiences. Offered fall semester. Fulfills general education requirement: Writing Process. Prerequisite: DCOM-130 or by permission of the instructor. 3 credits.

**DCOM 300. Dynamic Authoring.** This is a hands-on course that teaches students how to use authoring programs such as Flash to create basic interactive or dynamic objects. One day per week, one hour class that will emphasize completing daily assignments, in class work, and quizzes. 1 credit.

**DCOM 316. Journalism in the Digital Age.** This course will investigate ways that digital technology continues to transform journalistic standards, practices, and values. Participants will study and learn how to create professional blogs, use audio and video equipment, and employ varied techniques to create narratives appropriate for multimedia platforms. By the end of the semester students should have enhanced their communications skills, and heightened their awareness of social, cultural, economic, and political implications of online technologies and applications. Prerequisite: ENG 213 or DCOM 285, or by permission of the instructor. 3 credits. [This course is cross-listed with ENG 316]

**DCOM 330. Usability Design and Testing.** The course emphasizes planning, conducting, and analyzing usability tests. The course will teach the basic concepts of usability research and the practice of usability testing in a lab setting. Using the principles and techniques of usability testing, students will research the effectiveness of online and print documents, and physical objects, using video and digital equipment, with emphasis on rhetorical effectiveness and usability of information design and architecture, graphics, text, design, and format. 3 credits.

**DCOM 344. Digital Video Authoring.** This is a hands-on course that teaches students how to use video editing software to edit video and create video effects. One-day-per-week, one-hour class that will emphasize completing daily assignments, in class work, and quizzes. Corequisite DCOM 345/ART 345 or by permission. 1 credit.

**DCOM 345. Digital Video.** This course introduces students to the basic principles and practices of digital video creation and production. This course allows the student to build their digital video making skills by having them conceive, storyboard, film, edit, and author projects in DVD format. To complement their practical knowledge, the course gives the students theoretical understanding of how moving and time-based imagery function both conceptually and expressively. Corequisite: DCOM 344. 3 credits.

**DCOM 365. E-Business Strategy.** An exploration of the way businesses utilize technology to operate effectively. The course will focus on how businesses generate, manage, store, and distribute information that is key to performance of business objectives. Topics will include Enterprise Resource Planning (ERP), Customer Relationship Management (CRM), Supply Chain Management (SCM), e-Marketing, and Business Intelligence. Prerequisites: DCOM 265 or permission. 3 credits.

**DCOM 375. Advanced Website Design.** Students will learn programming and scripting for the web. This should teach the importance of clean, semantic markup coupled with advanced CSS techniques of today and tomorrow [CSS3]. Also cross browser compatibility, web accessibility, and web standards. Topics to be covered would be CSS and XHTML. Students begin by learning how web pages are structured and styled with scripting, then learn to use advanced applications to create sophisticated presentation and interactive effects, including typographical and layout control, and interactive elements. Students receive hands-on experience programming in web/multimedia projects and learn to create advanced Web sites and multimedia projects using current scripting languages and website authoring software. Prerequisite: DCOM 130. 3 credits.

**DCOM 385. Multimedia.** This course will reinforce and build upon the design skills, theories and experience from Writing for Digital Media, and focus on the production and postproduction/development process. Prerequisites: DCOM 285. Corequisite: DCOM 300. 3 credits.

**DCOM 386. Video Games: History, Theory, and Social Impact.** This class will critically examine video games as historical and cultural artifacts, as narratives, as works of art, as a technologically dependent medium, as part of human play and as a powerful social influence. Fulfills general education requirement: Disciplinary Perspectives. 3 credits.

**DCOM 430. Capstone - Project Management.** This capstone course teaches the theory and application of planning projects in the field of digital communications. The course covers principles of project management, research, and project strategy. Additionally, topics of professionalism, client interface, modes of communication, and collaborative group theory and practice are explored. 3 credits.

**DCOM 440. Capstone-Research and Development.** This course is a practicum class where students work on a project for external clients. This course simulates the collaborative and interdisciplinary environment of the field of digital communications and emphasizes usability testing in the identification of a problem, in formative testing and prototyping of potential design ideas and summative testing of the final project. The course takes the integrative theory and skills from the four areas of concentration (visual, content, commercial, and technological) and builds upon the theory and application explored in the first Capstone course to develop a multi-disciplinary team of students to deliver an appropriate project. 3 credits.

**DCOM 485. Media Theory.** This course explores the influence of technology on literary (written) culture, establishing a historical perspective on the way we produce, communicate and receive cultural works and how different technologies influence the production, dissemination, and reception of cultural artifacts. Prerequisites: Junior standing or permission. 3 credits.

**DCOM 495. Storytelling: Books to Video Games.** From classic novels and poetry, to popular fiction, to hypertext/media, participants will explore how the art of storytelling changes with the medium in which the story is told. This course first focuses on close reading and analysis of literature, and then explores the aesthetic and theoretical implications and opportunities of digital and interactive media that have created a rich new platform for the creation of literary and artistic works. Fulfills general education requirement: Liberal Studies Area 5 (Literature and Fine Art). Prerequisites: Junior standing or permission. 3 credits.

### *Disciplinary Perspectives Courses*

**DSP 310. AIDS.** An examination of the origins and history of HIV/AIDS, including its economic, political, social, psychological and legal repercussions as well as the basics of virology, serology, epidemiology and diagnostic testing. Fulfills general education requirement: Disciplinary Perspectives. 3 credits.

**DSP 320. The College Colloquium.** This team-taught course is offered in coordination with the College's annual colloquium series. Specific topics are announced at the time of registration. Fulfills general education requirement: Disciplinary Perspectives. Prerequisite: Junior or senior standing. 3 credits.

**DSP 322. The 20th-Century World.** An exploration of those forces that profoundly changed the institutions and structures of society in the Twentieth Century including migrations within and across national borders, responses to environmental opportunities and threats, and uses and misuses of technology. Examines the rate, direction, and implication of societal and cultural change at national and global levels. Fulfills general education requirement: Disciplinary Perspectives. 3 credits.

**DSP 324. The American Presidency: Power and Character.** An exploration of the relationship between a president's character and leadership using several administrations as case studies. Provides exposure to the historiographic literature on historical biography, presidential memoirs, the use of primary sources and the interpretation of public opinion. Fulfills general education requirement: Disciplinary Perspectives. 3 credits.

**DSP 328. Film and the American Identity.** This team-taught, interdisciplinary course will critically examine how films reflect, construct, and question the dominant image and understanding of the American identity. Disciplinary perspective. Fulfills general education requirement: Disciplinary Perspectives. 4 credits.

**DSP 335. Religion and Literature.** How do human beings experience the sacred? How is faith connected with doubt? What might "God" mean? What's the point of it all? Readings will include fiction, poetry, and essays drawn from a range of historical periods. This course examines what William James called "the varieties of religious experience" from the disciplinary perspectives of literature and religion. Fulfills general education requirement: Writing Process. Disciplinary Perspectives. Prerequisite: junior or senior standing required. 3 credits.

**DSP 340. Myths and Their Meaning.** Looks at the significance Greek and Roman myths hold for us today from the perspectives of literature, psychology, religion, sociology, and anthropology. Fulfills general education requirement: Writing Process. Disciplinary Perspectives. 3 credits.

**DSP 342. Plants and People.** Dependence on certain plants has shaped historical events and cultures, and continues to influence human lives today. This course explores the extent of the impact of plant life on the history, culture, and daily life of human beings. Through lectures, student class presentations, hands-on exercises and field trips, and a one-day field trip to Longwood Gardens, the effect of plants in past and present human lives will be investigated. Fulfills general education requirement: Disciplinary Perspectives. 3 credits.

**DSP 348. The Atomic Bomb: History, Science, and Culture.** The development and use of the atomic bomb in many ways defined the 20th Century and the Modern World. For understanding and insight, a multidisciplinary approach to this subject is required. In this course, the disciplines of history, physics, politics/international relations, ethics, and literature/film will be brought to bear on the "Bomb" and its significance for the Modern World. Fulfills general education requirement: Disciplinary Perspectives. 3 credits.

**DSP 350. Drugs and Behavior.** This survey course is designed to familiarize students with the physiological, psychological, social and legal aspects of various drugs including alcohol, marijuana, caffeine, over-the-counter drugs, cocaine, heroin and the opiates, LSD hallucinogens, barbiturates, and amphetamines. Fulfills general education requirement: Disciplinary Perspectives. 3 credits.

**DSP 352. Marx and Marxism.** Karl Marx is among the most influential thinkers in the modern world, and the ideology of Marxism has helped shape the cultural, religious, economic, and political history of the nineteenth and twentieth centuries. This course will examine Marx and Marxism(s) from an interdisciplinary perspective, first by exploring the life and work of Marx, and Marxist parties and movements, and then by examining the effects Marx's thinking has had on global politics, economic theory, religion, and philosophy. By examining the historical and philosophical roots and continuing significance of Marx and Marxism, students will have an occasion to practice a multidisciplinary study of a historical figure and movement and become better informed about intellectual and political history and how those continue to shape the world around us. Fulfills general education requirement: Disciplinary Perspectives. 3 credits.

**DSP 354. Issues in Contemporary Europe.** This course will focus on Europe after 1945. The class will begin with a segment on historical background after which it will be organized around a series of issues including geography and environment, the differences between American and European society, immigration and citizenship in Europe, ethnic conflict, the reunification of Germany, and European integration (the EU). The class sessions will center on discussion of readings from scholarly and news sources, and the films. Students will complete a project related to each student's major with a writing component and oral presentation. Fulfills general education requirement: Disciplinary Perspectives. Prerequisite: Junior or senior standing. 3 credits.

**DSP 356. Liberty and Justice.** This multi-disciplinary seminar will consider the relationship in contemporary society between individual freedom and moral-political equality. To this end, students will study the main doctrines advanced in libertarian, classical liberal, modern liberal, and communitarian thought, and critically evaluate the various strengths and weaknesses of each approach. Fulfills general education requirement: Disciplinary Perspectives. 3 credits.

**DSP 370. Paranormal and Pseudoscientific Phenomena: A Critical Examination.** By combining ideas from the social and natural sciences, as well as religion and philosophy, this course focuses on the importance of skepticism, scientific analysis, and valid logic when evaluating fringe-science topics such as ghosts, near-death experiences, psychics, astrology, UFOs and alien abductions, creationism, faith healing, alternative medicine, and other paranormal claims. Fulfills general education requirement: Disciplinary Perspectives. 3 credits.

**DSP 390. Special Topics.** This number designates a special topics course in the disciplinary perspectives component of the General Education Program. Faculty may make use of this opportunity to design a course outside normal departmental offerings. The course selection booklet that appears before registration each semester will describe individual courses in this category. A student may petition the director of general education to substitute another course in the curriculum for an approved course in any component of the program. This course may be repeated for credit as topic changes. Fulfills general education requirement: Disciplinary Perspectives. 3 credits.

### *Courses in Early Childhood Education*

**ECE 110. Child Development I.** This course will provide an overview of early childhood educators' beliefs that inquiry learning through curriculum integration is the most effective way to teach young children. The emergence of constructivism and the age-related patterns of intellectual growth will be examined. This knowledge will be essential for pre-service teachers learning to make competent decisions about curriculum and teaching methodology. The delivery approach will follow a theory-to-practice format so students can "see" how an understanding of theories of development and relationships enhances practice and planning. 3 credits.

**ECE 115. Child Development II.** This course will provide an understanding of the overall patterns of child development and learning. The student will gain insight into the relationships between child development, learning and teaching and the variation from these typical patterns. The emphasis will be placed on reviewing the characteristics of children at different ages and stages of development. Specific developmentally appropriate practices for school-aged children will be examined. Delivery approach will include, but not be limited to, authentic classroom videos, analyzing and responding to real student and teacher artifacts, case studies and simulations. 3 credits.

**ECE 210. Family Partnerships.** This course will focus on the developmental tasks and perspectives of the adults in children's lives. Students will spend time understanding the roles of parents, teachers, and other caregivers in the lives of young children as they work to form caring relationships with those around them. The delivery approach will follow a theory-to-practice format so students can "see" how an understanding of theories of development and relationships enhances practice. The professor will promote experiential learning, critical thinking, synthesis, planning, evaluation and action. Prerequisite: ECE 110 or 115, limited to early childhood education majors or permission of the instructor. 3 credits.

**ECE 220. Theory and Practices.** This course will involve an in-depth examination of child development and learning, family and community relationships, effective assessment strategies developmentally-effective approaches to teaching and learning and ethical guidelines related to early childhood practice. Students will have opportunities to view and design challenging learning environments. They will practice using observation, documentation and other appropriate assessment tools and approaches in field experiences. Delivery approach will include, but not be limited to, analyzing and responding to authentic classroom artifacts, case study analysis, simulations, journal critiques and field experiences. Prerequisite: ECE 110 or 115, limited to early childhood education majors or permission of the instructor. 3 credits.



**ECE 230. Creative Arts.** This course will begin with a definition of creativity as it applies to young children in the early childhood classroom. Specific attention will be given to clarifying the importance of art, music and drama in child development and learning. Delivery approach will include, but not be limited to, authentic classroom video viewing, field observations, group presentations, and research articles. Prerequisite: ECE 110 or 115, limited to early childhood education majors or permission of the instructor. 3 credits.

**ECE 240. Literacy and Literature I.** A course that will focus on the growth and development of the young, emergent reader. The course foundation will be supported by both a balanced literacy approach and the Pennsylvania Academic Standards for Reading, Writing, Speaking, and Listening. Stressing the importance of early intervention, students will explore a variety of strategies, methods and assessments to teach reading supported by research. These include, but are not limited to phonological awareness, letter recognition, sound symbol relationships, vocabulary development, kid writing and inventive spelling. Prerequisite: ECE 110 or 115, limited to early childhood education majors or permission of the instructor. 3 credits.

**ECE 310. Math Methods.** This course will begin with a historical overview of mathematics teaching and learning for young children. Current ideas on teaching mathematics will be introduced, as well as the many ways to incorporate mathematics learning into everyday classroom life. Assessments that encompass both understanding and procedural skills will be introduced. Curricular expectations related to number and operations, geometry, measurement, algebra, and data analysis and probability will be explored. Delivery approach will include but not be limited to inquiry-based instruction, journal critiques and children's literature with mathematical themes, subplots and references. Prerequisite: ECE 110 or 115, EDU 140, limited to early childhood education majors or permission of the instructor. 3 credits.

**ECE 320. Program Design and Curriculum Development.** This course provides a comprehensive, balanced overview of early childhood education. Understanding child development, play, guidance, working with families and communities, and diversity are the five essential elements of early education that are addressed in this course. The delivery approach will include, but not be limited to, classroom video reflections, research articles, technology experiences and case study analyses and simulations. Prerequisite: ECE 110 or 115, EDU 140, limited to early childhood education majors or permission of the instructor. 3 credits.

**ECE 330. Literacy and Literature II.** A course that will focus on the growth and development of the beginning reader. The course foundation will be supported by both a balanced literacy approach and the PDE standards for reading, writing, speaking, and listening. Stressing the importance of a strong foundation in phonics, vocabulary, fluency, and comprehension, students will explore a variety of strategies, methods and assessments to teach reading supported by research. Students will explore types of writing, the writing process, and conventional spelling instruction. As the writing process is taught, students will demonstrate the process by writing a 3000-word paper on a topic related to the course. The professor will conference with each student during the revision and editing stages of the process. Prerequisite: ECE 110 or 115, 240, EDU 140, limited to early childhood education majors or permission of the instructor. 3 credits.

**ECE 335. Literacy and Literature III.** A course that will focus on the growth and continued development of the beginning reader as independent reading within the curriculum becomes necessary. The course foundation will be supported by both a balanced literacy approach and the PDE standards for reading, writing, speaking, and listening. Stressing the importance of comprehension, students will explore a variety of strategies, methods, and assessments to teach reading and writing across the content areas as supported by research. This includes but is not limited to writing short stories and informal pieces with an understanding of the stylistic aspects and conventions of composition. Fulfills general education requirement: Writing Process. Prerequisite: ECE 110, 115, 240, 330, EDU 140, limited to early childhood education majors or permission of the instructor. 3 credits.

**ECE 340. Teacher Researcher.** This course will begin with an overview of national, state and local interests that continue to inspire educators, businesses, and government to become more involved in discussions and to offer solutions, including legislative solutions, to assure children's success across the nation. Students will be prepared to make informed, research-based professional decisions about each of their students on a daily basis, using ongoing observation and diagnosis to support their decisions. Delivery approach will include, but not be limited to, critiques of prototypical examples of effective practices according to research, modeling evidence-based strategies for the culturally and linguistically diverse learners, informational reading and writing. Fulfills general education requirement: Writing Process. Prerequisite: ECE 110 or 115, EDU 140, limited to early childhood education majors or permission of the instructor. 3 credits.

**ECE 350. Child Wellness.** This course will outline common safety issues and guidelines that all adults can employ to help prevent serious injuries (and lawsuits) to children and simultaneously help orient children to safe play practices. This course will also address modern societal pressures that have resulted in fewer opportunities to develop the motor and cognitive skills needed for safe play. Delivery approach will include, but not be limited to, authentic indoor and outdoor classroom video viewing, field observations, group presentations, and research articles. Prerequisite: ECE 110 or 115, EDU 140, limited to early childhood education majors or permission of the instructor. 3 credits.

**ECE 360. Social Studies Methods.** This course is designed to introduce the complexity of social studies and draws on years of related research that demonstrates the importance of inquiry learning to deepen children's understanding of the integrated curriculum. The areas of child development related to the social studies, the current national standards and practical ideas for teaching will also be examined. Delivery approach will include, but not be limited to, inquiry-oriented instruction, class discussions, demonstrations of early concrete learning experiences and hands-on experience with various social studies programs. Prerequisite: ECE 110 or 115, EDU 140, limited to early childhood education majors or permission of the instructor. 3 credits.

**ECE 370. Play and Projects.** This course is about children's play and development beginning with a history of ideas, beliefs, and activities of play, the early and contemporary theories of play and how scholars' explain its meaning, functions, and developmental benefits. Students will gain an understanding of the developmental advantages of children's free play and the disadvantages of not playing. Delivery approach will include, but not be limited to, lecture, individual and group presentations, fieldwork observations and journaling. Prerequisite: ECE 110, 115, EDU 140, limited to early childhood education majors or permission of the instructor. 3 credits.

**ECE 380. Science Methods.** This course is designed to introduce the major areas of science instruction and define the relative importance of science content, processes, skills and attitudes needed for young children to successfully understand science. National Science Education Standards will be examined to identify what children at different ages and stages should know and be able to do in the area of science. Delivery approach will include, but not be limited to: inquiry-oriented instruction, class discussions, integrated unit plans and hands-on experience with various science programs. Prerequisite: ECE 110, 115, EDU 140, limited to early childhood education majors or permission of the instructor. 3 credits.

**ECE 385. Advocacy, Leadership, and Collaboration.** This course will begin with an examination of the professional and ethical standards expected of an early childhood educator. Collaboration with families, the community, and public agencies will be practiced and further developed through co-teaching opportunities. Delivery approach will include, but not be limited to, field experiences, class discussions, simulations and reflective writings. Prerequisite: ECE 110, 115, EDU 140, limited to early childhood education majors or permission of the instructor. 3 credits.

**ECE 410. Senior Capstone.** Special topics related to current concerns in education are researched and presented by the students in the course. Issues related to teaching and to further professional growth are explored. Teams of students are required to do extensive research in an approved topic and to make a computer-based multimedia presentation of that research to the class. Prerequisite: Limited to spring semester senior early childhood education majors or permission of instructor. 3 credits.

**ECE 440. ECE Student Teaching.** Each student spends an entire semester in an area school under the supervision of a carefully selected cooperating teacher. Open to seniors or students who are seeing certification only. Prerequisites: Prerequisites: Cumulative, calculated grade point average of 3.000; completion of major, Act 354, and Act 49-2 course requirements. 12 credits.

#### *Courses in Economics*

**ECN 101. Principles of Microeconomics.** The course examines how individuals and firms make choices within the institution of free-market capitalism. Individuals decide how much of their time to spend working and what to buy with the earnings of their labor. Firms decide how much to produce and in some cases what price to charge for their goods. Together these choices determine what is produced, how it is produced, and for whom it is produced in our economic system. Fulfills general education requirement: Liberal Studies Area 2 (Social Science). 3 credits.

**ECN 102. Principles of Macroeconomics.** This course extends the study of consumer and producer choices to discover how they affect the nation's economy. Macroeconomics deals with the economy as a whole as measured by the key variables of inflation, unemployment, and economic growth. Emphasis is on both Keynesian and classical theories and how they predict what monetary and fiscal policies can be used to affect these variables and reach national economic goals. Fulfills general education requirement: Liberal Studies Area 2 (Social Science). 3 credits.

**ECN 105. Essentials of Economics.** This course examines economics from both the microeconomic and macroeconomic perspectives. The course covers the basic principles of economics including the problem of scarcity, economics systems and models, supply and demand, market equilibrium, competition and monopoly, the banking system, monetary policy and inflation, fiscal policy, deficits, economic growth, and international trade. Fulfills general education requirement: Liberal Studies Area 2 (Social Science). 3 credits.

**ECN 201. Intermediate Microeconomic Analysis.** This course covers the major theories of mainstream neoclassical economics. There is intensive study of the models of consumer and firm behavior that permit understanding of how the prices and quantities of goods and services are determined in a free market capitalistic system. The implications for social welfare, and equity and efficiency issues that are inherent in the free-market system are emphasized. Prerequisite: ECN 101 and 102. Economics majors need a cumulative GPA of 2.00 in all foundation courses completed to date. 3 credits.

**ECN 202. Intermediate Macroeconomic Analysis.** In this course, students develop a model of the macroeconomy which permits them to analyze the nature of the business cycle. The assumptions built into the model can be altered, rendering it capable of examining the macroeconomy from various theoretical viewpoints. In addition to unemployment, inflation and economic growth, the course covers real business cycles, the macroeconomic implications of free trade and emphasizes the microeconomic foundations of macroeconomics. Prerequisite: ECN 101 and 102. Economics majors need a cumulative GPA of 2.00 in all foundation courses completed to date. 3 credits.

**ECN 250. Public Choice Economics.** This course concerns itself with how individuals and groups make decisions in the context of the family, interest groups, bureaucracies and the government. It goes beyond individual choice and private markets to group interests and activities. It emphasizes the ethical and political nature of all economic choices. Prerequisite: ECN 101 and 102. 3 credits.

**ECN 312. Money and Banking.** The study of the nature and functions of money and credit, including the development and role of commercial and central banking, structures of the Federal Reserve System, and monetary and banking theory, policy and practice. The course considers the political nature of money and the tension between fiscal and monetary policy making. Prerequisites: ECN 101 and 102. 3 credits.

**ECN 316. Environmental Economics.** Environmental economics stresses the co-evolution of human preferences, understanding, technology and cultural organization. This approach differs from that of conventional economics and conventional ecology in the importance it attaches to environment-economy interactions. The role that our economic system plays in decisions affecting the sustainability of our ecosystems is emphasized. Prerequisites: ECN 101 and 102. 3 credits.

**ECN 317. Energy and Natural Resource Economics.** This course applies economic principles to the management of natural resources with a central focus on energy and climate change. It involves the study of resource use and conservation, utilization rates of renewable and non-renewable resources, the issue of economy size and the limits to growth, the natural resource economic issues of development versus preservation, and green accounting. Prerequisites: ECN 101 and 102. 3 credits.

**ECN 321. Public Finance.** This course extends the study of public economics to its application in the principles of taxation and public expenditures. Topics include the structure of the Federal Budget, the national debt and fiscal deficits, but also state and local financing and the division of responsibilities between the federal and local governments. Fulfills general education requirement: Writing Process. Prerequisites: ECN 101 and 102. 3 credits.

**ECN 331. International Finance.** This course extends the Keynesian Macroeconomic model to incorporate international financial flows; the determinants of the balance of payments; foreign exchange markets; exchange rate regimes; history of international economic institutions; and macroeconomic policy options. The course contains lectures, student presentations, theoretical problem solving, economic analysis of real-world events, reading, analyzing, and writing on academic and current event articles. Prerequisites: ECN 101 and 102. 3 credits.

**ECN 332. International Trade.** This course introduces the theory and practice of international economic relations. It includes, not only the history and purpose of trade and the traditional theory of the gains from trade, but also the more modern theory of trade with imperfect competition. The history and nature of the institutional structures of trade (World Trade Organization) are covered. Fulfills general education requirement: Writing Process. Prerequisites: ECN 101 and 102. 3 credits.

**ECN 333. Game Theory: Economic Applications.** Game theory studies how "rational" players should act and interact in strategic situations. In economics, players include people, firms, or countries. Game theory also helps predict and explain players' actions. Cooperative and non-cooperative games are used to measure behavior and identify ideal strategies in situations as diverse as industrial negotiations, marriage bargaining, and international environmental agreements. Prerequisite: ECN 201 or permission of the instructor. 3 credits.

**ECN 400. Internship.** Practical and professional work experience related to the student's career interests, involving both on-site and faculty supervision. Internship credit does not fulfill required electives in the major. May be repeated for credit (up to 12 credits of internship may be counted toward the degree). Prerequisites: 2.75 GPA, permission of the chairperson, completion of department's application form. Generally limited to juniors and seniors. 1-12 credits.

**ECN 405. Applied Econometrics.** In this course students apply statistical techniques to study the quantitative measurement and analysis of actual economic phenomena, describing economic relationships, and test hypothesis about economic theory and forecasting future economic events. Applications include examining violations of the classical assumptions and testing for specification errors. Prerequisites: MAS 170, 270, or 372; ECN 201/202 or ASC 385; or permission of the instructor. 3 credits.

**ECN 410. Senior Seminar.** This small seminar course is a reading course in support of the research interests of the professor, the student, or both. The content and structure of the course will depend on the research interests of the professor, but will always require from each student a major paper related to this area. Reading and critiquing articles from refereed economic journals and the popular press are also included. Fulfills general education requirement: Writing Process. Prerequisites: ECN 201 and 202 and junior standing. 3 credits.

### *Courses in Education*

**EDU 140. Educational Technology and Instructional Media.** An introduction to the educational technologies used in the classroom based on the Pennsylvania Science and Technology Standards. Among the topics covered are computer hardware, peripherals, and operating systems; multimedia production; software evaluation and use; web page evaluation and construction; and ethical and societal issues related to the use of technology. Prerequisites: freshman or sophomore education majors or other certification candidates with permission of instructor 3 credits.

**EDU 240. Language, Cultural Diversity and Academic Achievement: PreK - Grade 8.** This course is designed for the pre-service music, art, language, early childhood education, or middle school educator to gain an understanding of the complex factors impacting the education and language acquisition of the diverse language and cultural minority groups of the United States. This course is required under Act 49-2 and may be taken while student teaching. Fulfills general education requirement: Social Diversity Studies. 3 credits.

**EDU 245. Language, Cultural Diversity and Academic Achievement: Grade 7 - Grade 12.** This course is designed to allow the pre-service music, art, language, or grade 7 - grade 12 secondary teacher certification candidate to gain an understanding of the complex factors impacting the education and language acquisition of the diverse language and cultural minority groups of the United States. This course is required under Act 49-2 and may be taken while student teaching. Fulfills general education requirement: Social Diversity Studies. 3 credits.

**EDU 450. Curriculum and Instruction for the Young Adolescent.** The course will examine the historic and philosophical contexts of middle level education and current issues affecting middle schools including the specific characteristics of young adolescents, developmentally appropriate curriculum, instruction and assessment, the guidance and teaching roles of middle school teachers, cultural diversity and communication with parents and the public. Fulfills general education requirement: Writing Process. Prerequisite: Limited to teacher certification candidates or permission of instructor. 3 credits.

#### *Courses in Elementary Education*

**ELM 401. Art in the Elementary School.** Introduction to creative art activity for children in elementary school. Topics covered include philosophical concepts, curriculum, evaluation, and studio activity involving a variety of art media, techniques, and processes and are based on the Pennsylvania Art Standards. Prerequisite: Limited to education majors or permission of instructor 3 credits.

**ELM 440. Student Teaching.** Each student spends an entire semester in an area school under the supervision of a carefully selected cooperating teacher. Open to seniors or students who are seeking certification only. A cumulative grade point average of 3.0 is required to student teach. 12 credits.

**ELM 499. Senior Seminar.** Special topics related to current concerns in education are researched and presented by the students in the course. Issues related to teaching and to further professional growth are explored. Teams of students are required to do extensive research in an approved topic and to make a computer-based multimedia presentation of that research to the class. Prerequisite: Limited to senior elementary education majors or permission of instructor 3 credits.

#### *Courses in English*

**ENG 099. Internship Portfolio.** This formal collection of the student's completed communications-oriented work is used to demonstrate basic competencies necessary for enrollment in ENG 400 (Internship). Offered every semester. Graded satisfactory/unsatisfactory. May be repeated. 0 credits.

**ENG 111. English Communications I.** This course will help the student develop his or her own voice while meeting the demands of academic and public expression. It will emphasize the development of clear, organized, and rhetorically effective written prose. Offered fall semester. Fulfills general education requirement: English Communications. 3 credits.

**ENG 112. English Communications II.** This course continues to help the student develop his or her own voice while meeting the demands of academic and public expression. In addition to emphasizing the development of clear, organized, and rhetorically effective written prose, this course also focuses on speaking, reading, and research skills. Offered spring semester. Fulfills general education requirement: English Communications. Prerequisite: ENG 111, FYS 100 or permission of chairperson. 3 credits.

**ENG 120. Introduction to Literature.** Introduction to literary genres and the basic methodology, terminology and concepts of the study of literature. Offered every semester. Fulfills general education requirement: Liberal Studies Area 5 (Literature and Fine Art). 3 credits.

**ENG 140. Introduction to Media in the Digital Age.** Introduction to theory and practice in the rapidly-evolving realm of digital media and its social, cultural, political, economic, and other implications. Offered every semester. 3 credits.

**ENG 150. Introduction to Creative Writing.** Introduction to a variety of models and craft concepts useful in writing poetry, fiction, nonfiction, and other genres. This course provides the basis for the student's acquisition of a repertoire of techniques. Usually offered fall semester. Prerequisite: ENG 112, or permission of the instructor. 3 credits.

**ENG 180. Introduction to Theater.** Introduction to the study of theater arts that traces the evolution of the techniques of acting, stagecraft, and playwriting from ancient times to the present. Usually offered alternate fall semesters. Fulfills general education requirement: Liberal Studies Area 5 (Literature and Fine Art). 3 credits.

**ENG 201. Basic Acting.** Introduction to the development of skills in speech and movement through the use of theater games and improvisations. Usually offered fall semester. 3 credits.

**ENG 202. Advanced Acting.** Exploration of the relationship between the actor and the text through script analysis and the performance of scenes and monologues. Usually offered spring semester. 3 credits.

**ENG 204. Theater Production and Performance.** Instruction in all aspects of producing and performing a full-length play. Usually offered alternate fall semesters. 3 credits.

**ENG 213. Journalism: News Reporting.** Introduction to the basic skills of journalistic writing such as interviewing, gathering and reporting news and writing feature stories according to standard formats and styles. The course also covers ethical and legal considerations related to news reporting. Fulfills general education requirement: Writing Process. Prerequisite: ENG 112, or permission of the instructor. 3 credits.

**ENG 217. Multimedia Narratives.** Hands-on introduction to a genre of storytelling that weaves together audio, video, voiceover, music, photographs, and other elements. The course will focus on writing and creative expression, and help a student move from academic discourse toward discovery of a more natural voice. Offered fall semester. Prerequisite: ENG 112, or permission of the instructor. 3 credits.

**ENG 219. Creative Writing Workshop.** Introduction to poetry or fiction, which will alternate each year. Intensive focus on the student's own writing as well as study of literary works designed to enhance familiarity with and understanding of craft concepts. Offered spring semester. May be repeated for credit. Prerequisite: ENG 150, or permission of the instructor. 3 credits.

**ENG 221. Survey of American Literature I.** Survey of selected major American authors from the colonial period to about 1900. Usually offered every semester. Fulfills general education requirement: Liberal Studies Area 5 (Literature and Fine Art). 3 credits.

**ENG 222. Survey of American Literature II.** A survey of selected major American authors from 1900 to the present. Usually offered every semester. Fulfills general education requirement: Liberal Studies Area 5 (Literature and Fine Art). 3 credits.

**ENG 225. Survey of English Literature I.** A survey of selected major English authors from the Middle ages to about 1800. Usually offered every semester. Fulfills general education requirement: Liberal Studies Area 5 (Literature and Fine Art). 3 credits.

**ENG 226. Survey of English Literature II.** Survey of selected major English authors from about 1800 to the present. Usually offered every semester. Fulfills general education requirement: Liberal Studies Area 5 (Literature and Fine Art). 3 credits.

**ENG 227. Survey of World Literature I.** Survey of selected major writers from earliest literate history to about A.D. 1000. This includes literature from western Europe and non-western cultures. Usually offered fall semester. Fulfills general education requirement: Liberal Studies Area 5 (Literature and Fine Art). 3 credits.

**ENG 228. Survey of World Literature II.** Survey of selected major writers from about A.D. 1000 until about 1800. This course includes literature from western Europe and non-western cultures. Usually offered spring semester. Fulfills general education requirement: Liberal Studies Area 5 (Literature and Fine Art). 3 credits.

**ENG 301. Acting Lab.** A workshop that meets once a week to explore specific issues in acting; course content changes every semester. Usually offered every semester. May be repeated for credit. 1 credit.

**ENG 314. Public Relations in the Digital Age.** Investigation of the purposes and methods of contemporary public relations as practiced by corporations, non-profit organizations, trades and professions as well as celebrities, sports stars, and political figures. The course requires planning of promotional campaigns using state-of-the-art digital technology. Usually offered alternate fall semesters. Prerequisite: ENG 213, or permission of the instructor. 3 credits.

**ENG 315. Editing.** Introduction to the theory and practice of editing, with an emphasis on reading closely, revising, creating headlines, and other aspects of refining and preparing copy for publication or online distribution. Usually offered alternate spring semesters. Fulfills general education requirement: Writing Process. Prerequisite: ENG 213, or permission of the instructor. 3 credits.

**ENG 316. Journalism in the Digital Age.** Exploration of the ways that digital technology is transforming journalistic standards and practices. The course requires students to create news and feature stories for multimedia platforms. Offered spring semester. Prerequisite: ENG 213 or DCOM 285, or permission of the instructor 3 credits. [This course is cross-listed with DCOM 316]

**ENG 317. Multimedia Feature Writing.** Introduction to the fundamentals of feature writing, with an emphasis on specific kinds of research, interviewing, storytelling, and editing text for diverse media. The course is run as a writing workshop. Offered spring semester. Prerequisite: ENG 213 or 217, or permission of instructor. 3 credits.

**ENG 318. Persuasive Communications.** Investigation of the theory and practice of advanced composition and rhetoric in multiple communications contexts. This course introduces the student to classical and contemporary rhetoric, and contributes to the enhancement of persuasive writing skills. Usually offered alternate fall semesters. Prerequisite: ENG 112 and ENG 140, or permission of instructor. 3 credits.

**ENG 319. Craft of a Genre.** This "process" course emphasizes the conceptual frameworks of various literary genres and provides an introduction to rhetorical strategies, formal elements, and literary theories that illuminate the practice of writing. Usually offered alternate fall semesters. Prerequisite: ENG 150, or permission of instructor. 3 credits.

**ENG 321. History and Grammar of the English Language.** Examination of the evolution of English phonology, morphology, syntax and vocabulary, including current conventions and usage. Usually offered spring semester. 3 credits.

**ENG 334. Adolescent Literature.** Seminar on the adolescent literature canon with which many teachers work, especially in middle school and some levels in high school. Usually offered alternate fall semesters. Fulfills general education requirement: Writing Process. Prerequisite: ENG 120 or 200-level literature survey. 3 credits.

**ENG 341. Shakespeare I.** Concentrated study of early Shakespearean drama, especially the comedies and the histories. Writing process. Usually offered alternate spring semesters. Fulfills general education requirement: Writing Process. Prerequisite: ENG 120 or 200-level literature survey. 3 credits.

**ENG 342. Shakespeare II.** Concentrated study of late Shakespearean drama, especially the tragedies and the romances. Usually offered alternate spring semesters. Fulfills general education requirement: Writing Process. Prerequisite: ENG 120 or 200-level literature survey. 3 credits.

**ENG 351. Poetry.** Seminar on poetry drawing from English, American, and Commonwealth traditions from the Middle Ages to present. This seminar will introduce the student to a wide range of poems, critical vocabulary, and literary interpretations. Usually offered alternate fall semesters. Fulfills general education requirement: Writing Process. Prerequisite: ENG 120 or 200-level literature survey. 3 credits.

**ENG 352. The Novel.** Historical view of the novel, drawing both on novels written originally in English and on those translated from other languages. Usually offered alternate fall semesters. Fulfills general education requirement: Writing Process. Prerequisite: ENG 120 or 200-level literature survey. 3 credits.

**ENG 370. Literary Theory and Its Applications.** Investigation of fundamental questions such as the definition of literature, the value of literature, and the validity of the literary canon. This course provides an introduction to a variety of critical approaches to literary interpretation, on both a theoretical and practical level. Usually offered alternate spring semesters. Prerequisite: ENG 120 or 200-level literature survey. 3 credits.

**ENG 375. Film.** Introduction to analysis and critique of a broad range of foreign and American films and an overview of film's history as a form of political, social, and cultural expression. This course contributes to the student's acquisition of a critical vocabulary and development of critical thinking skills. Usually offered alternate spring semesters. Fulfills general education requirement: Liberal Studies Area 5 (Literature and Fine Art). Prerequisite: ENG 120 or 200-level literature survey. 3 credits.

**ENG 380. Politics and Media in the Digital Age.** Investigation of the impact of the media on the political process and vice versa. Exploration of the history of the interaction between politics and media, and the impact of evolving digital technologies on the face of political communication in the United States. Usually offered alternate fall semesters. Prerequisites: ENG 140 or 213, or permission of the instructor. 3 credits.

**ENG 390. Special Topics.** Study of diverse topics that vary from year to year. Past topics have included Film Criticism, Environmental Literature, Sports Literature, and Small Town Life. Usually offered at least once a year. May be repeated for credit when focused on a topic not previously studied. Prerequisites vary. 3 credits.

**ENG 400. Internship.** Practical and professional work experience, on-or-off campus, related to the student's career interests, involving both on-site and faculty supervision, and generally limited to juniors and seniors. Usually offered every semester. Graded pass/fail. May be repeated for credit (up to 12 credits of internship may be counted toward the degree). Prerequisites: ENG 099; permission of the chairperson; application form from Registrar's Office must be completed prior to registration. Generally limited to juniors and seniors. 1-12 credits.

**ENG 420. African-American Literature.** Examination of African-American literature as a lens through which students may more clearly view the ways that African Americans have contributed to, been influenced by, appropriated and transformed notions of American identity, specifically conceptions of freedom, equality, gender, sexuality, religion, class, and literature. Usually offered alternate fall semesters. Fulfills general education requirement: Social Diversity Studies. Prerequisite: ENG 120 or 200-level literature survey. 3 credits.

**ENG 421. Literature by Women.** Investigation of the ways in which women from a broad diversity of cultural backgrounds respond to and reshape a tradition that has typically been gendered as masculine. This course explores the effects of culture, ethnicity, class, sexuality, and religion on women's writing. Usually offered alternate fall semesters. Fulfills general education requirement: Social Diversity Studies. Prerequisite: ENG 120 or 200-level literature survey. 3 credits.

**ENG 450. Creative Writing Portfolio.** Formal collection of the student's completed creative work must be submitted to the department in partial fulfillment of the creative writing concentration. To be offered every semester beginning in fall 2012. Graded satisfactory/unsatisfactory. 0 credits.

**ENG 451. Postcolonial/Anglophone Literature.** Seminar on literature in English in the period since 1800, concentrating on literature that grows out of the worldwide encounter between British and American literary traditions and other cultures. This course examines the remarkable syntheses that have emerged in the literature of other countries. Usually offered fall semester. Fulfills general education requirement: Writing Process. 3 credits.

**ENG 499. Literature Capstone.** Guides the literature concentrator through the creation of a long research paper suitable for use as a writing sample for graduate school application or other professional purposes. Usually offered every semester. Graded satisfactory/unsatisfactory. Prerequisite: Junior standing (preferably spring semester), and a declared literature concentration. 0 credits.

### *Courses in French*

**FRN 101. Elementary French I.** Aimed at developing basic communicative proficiency in French. Also offers insights into French-speaking cultures. Fulfills general education requirement: Foreign Language. 3 credits.

**FRN 102. Elementary French II.** Second semester of introductory course in French. Fulfills general education requirement: Foreign Language. Prerequisite: FRN 101 or equivalent. 3 credits.

**FRN 201. Intermediate French I.** Review of material typically covered in a first- year French course and continues to develop proficiency in the four language skills- listening, speaking, reading and writing- while enhancing students' knowledge of the cultures of French-speaking peoples. Fulfills general education requirement: Foreign Language. Prerequisite: FRN 102 or equivalent. 3 credits.

**FRN 202. Intermediate French II.** Second semester of Intermediate French. Fulfills general education requirement: Foreign Language. Prerequisite: FRN 201 or equivalent. 3 credits.

**FRN 300. Advanced Conversation.** Intensive practice in spoken French. Discussions on a wide range of topics related to French life and contemporary society. Prerequisite: FRN 202 or equivalent. 3 credits.

**FRN 310. Advanced Grammar and Composition.** Intensive practice in written French. Development of advanced writing skills through composition assignments based on contemporary French writing and issues. Prerequisite: FRN 202 or equivalent. 3 credits.

**FRN 320. Business French.** A study of the language of business and business practices of France and French-speaking countries. Prerequisite: FRN 202 or equivalent. 3 credits.

**FRN 340. The Sounds of French.** A course in phonetics and phonology designed to help students acquire standard pronunciation and intonation. Prerequisite: FRN 202 or equivalent. 3 credits.

**FRN 350. French Culture and Civilization.** An overview of French and Francophone cultures, history, and geography, with special focus on current issues. Taught in French. Prerequisite: FRN 202 or equivalent. 3 credits.

**FRN 360. Culture and Civilization of Francophone Countries.** This course explores the culture and civilization of Francophone countries outside of France, countries where French is one of the languages spoken and where it is the main vehicle of literature and culture. Prerequisite: FRN 202 or equivalent. 3 credits.

**FRN 410. French Literature of the Middle Ages and Renaissance.** A study of French literature from the 9th to the 16th centuries. Works from the medieval epic and courtly romance through Renaissance philosophical essays. Development of advanced communicative skills through literature will be promoted. Fulfills general education requirement: Writing Process. Liberal Studies Area 5 (Literature and Fine Art). Prerequisite: FRN 202 or equivalent. 3 credits.

**FRN 420. French Literature of the 17th and the 18th Centuries.** A study of the spirit and principal authors of French Classicism (with a special emphasis on the theater of Corneille, Racine and Moliere) and the main ideological currents of the 18th century, with a special emphasis on the writers of the Enlightenment and their role in the transition from the old to the new regime (Voltaire, Montesquieu, Diderot, Rousseau, l'Abbe Prevost, Marivaux). Fulfills general education requirement: Writing Process. Liberal Studies Area 5 (Literature and Fine Art). Prerequisite: FRN 202 or equivalent. From Subject FRN; From Levels 200 300 400; 3 credits.

**FRN 430. French Literature of 19th Century.** A study of the main ideological and literary currents of the 19th centuries; Romanticism, Realism and Naturalism. Emphasis on the works of Flaubert, Balzac, Zola, Maupassant, Baudelaire, and others. Fulfills general education requirement: Writing Process. Liberal Studies Area 5 (Literature and Fine Art). Prerequisite: FRN 202 or equivalent. 3 credits.

**FRN 440. French Literature of the 20th and 21st Centuries.** A study of contemporary society as reflected in the literary evolution from Proust to the Nouveau Roman and le theatre de l'Absurde. Such writers as Giraudoux, Anouilh, Malraux, Sartre, Camus, Ionesco and Becket will be studied. Fulfills general education requirement: Writing Process. Liberal Studies Area 5 (Literature and Fine Art). Prerequisite: FRN 202 or equivalent. 3 credits.

**FRN 450. Modern Theater and Poetry of France.** A study of theater and poetry of the 19th and 20th centuries. Fulfills general education requirement: Writing Process. Liberal Studies Area 5 (Literature and Fine Art). Prerequisite: FRN 202 or equivalent. 3 credits.

### *Courses in German*

**GMN 101. Elementary German I.** Introductory course in German. Aimed at developing basic communicative proficiency in German. Also offers insights into German-speaking cultures. Fulfills general education requirement: Foreign Language. 3 credits.

**GMN 102. Elementary German II.** Second semester of introductory course in German. Fulfills general education requirement: Foreign Language. Prerequisite: GMN 101 or equivalent. 3 credits.

**GMN 201. Intermediate German I.** Reviews topics typically covered in a first-year German course and continues to develop proficiency in listening, speaking, reading and writing while exploring the cultures of German-speaking people. Fulfills general education requirement: Foreign Language. Prerequisite: GMN 102 or equivalent. 3 credits.

**GMN 202. Intermediate German II.** Second semester of intermediate German. Fulfills general education requirement: Foreign Language. Prerequisite: GMN 201 or equivalent. 3 credits.

**GMN 300. Advanced Conversation.** Intensive practice in spoken German. Discussions on a wide range of topics related to German life and contemporary society. Prerequisite: GMN 202 or equivalent. 3 credits.

**GMN 301. Advanced Grammar and Composition.** Intensive practice in written German. Development of advanced writing skills through composition assignments based on contemporary German writing and issues. Prerequisite: GMN 202 or equivalent. 3 credits.

**GMN 305. Summer Study in Germany.** This four-week German language and culture course provides students possessing intermediate to advanced proficiency with an intensive linguistic and cultural immersion in an authentic German university environment. It combines daily classroom instruction with organized cultural activities and excursions. Language of instruction is German. Offered each summer. Fulfills general education requirement: Foreign Studies. Prerequisite: GMN 202 or equivalent, permission of the instructor. 4 credits.

**GMN 310. Germany Today.** Explores key issues in present-day German society. Prerequisite: GMN 202 or equivalent. 3 credits.

**GMN 320. Business German.** A study of the language of business and business practices of Germany and German-speaking countries. Prerequisite: GMN 202 or equivalent. 3 credits.

**GMN 340. The Sounds of German.** A course in the comparative phonetics and phonology of English and German designed to help students acquire standard pronunciation and intonation. Prerequisite: GMN 202 or equivalent. 3 credits.

**GMN 350. German Culture and Civilization.** An overview of German culture, history, and geography. Prerequisite: GMN 202 or equivalent. From Subject GMN; From Levels 200 300; 3 credits.

**GMN 410. Readings in German.** Works of fiction and nonfiction selected to explore a particular topic or theme. This course may be repeated for credit as topic changes. Fulfills general education requirement: Writing Process. Liberal Studies Area 5 (Literature and Fine Art). Prerequisite: GMN 202 or equivalent. 3 credits.

**GMN 460. Lyric Poetry.** A study of German song from Minnesang to Kanaksprak. Involves both texts and music as appropriate. Fulfills general education requirement: Writing Process. Liberal Studies Area 5 (Literature and Fine Art). Prerequisite: GMN 202 or equivalent. 3 credits.

### *Courses in History*

**HIS 103. The Ancient World: the Dawn of Civilization to the Fall of the Han and Roman Empires.** A study of the development of civilizations from the development of human civilizations to the end of the first era of empire building in India, China, and the Mediterranean. Topics include the river valley civilizations of Mesopotamia, Egypt, India, and China; the formation of great philosophies and religious traditions in Asia and Greece; and the first empires in the Mediterranean world, India, and China. Fulfills general education requirement: Liberal Studies Area 1 (History). 3 credits.

**HIS 104. The Second Age of Empires: World History From the Fall of Rome to the Mongol Invasions.** A study of the second phase of empire building in world history, spanning the period from the fall of Rome in 476 to the end of the Middle Ages in Europe and the end of Mongol domination in Asia and Russia by 1450. Topics will include the Byzantine Empire; the gradual recovery of Europe after the fall of Rome; the renewal of China under the T'ang and the Song Dynasties; the Islamic dynasties in the Middle East, Africa, India, and China; the pre-Columbian empires of Latin America; and the Mongol invasions. Fulfills general education requirement: Liberal Studies Area 1 (History). 3 credits.

**HIS 105. Formation of the Modern World.** This course is a survey of modern history, from ca. 1400 to the present. The course will focus on one of the most important aspects of modern history, the processes of colonization and decolonization. The course is framed by three main areas of inquiry. First students explore why it was the Europeans who expanded over the globe from 1500 to 1900. The second theme is the cultural encounter that resulted from European expansion. The final section of the course deals with the twentieth-century. The following themes are covered: colonial resistance, the three-world order, and globalization. Fulfills general education requirement: Liberal Studies Area 1 (History). 3 credits.

**HIS 125. United States History to 1865.** The major events and developments in America from Columbus to the Civil War, with emphasis on the creation of a distinctive American society from the interaction of different cultures, ethnic groups, and ideas. Major themes include the transformation of European cultural ideas in colonial America and the impact of republican ideology, democratization, and the spread of the market economy between the Revolution and the Civil War. Fulfills general education requirement: Liberal Studies Area 1 (History). 3 credits.

**HIS 126. United States History Since 1865.** American history from 1865 until the present. Students learn about important themes in recent history such as law and order, native land rights, protest movements, foreign policy and its critics, and the rise of corporate power and its economic and political consequences. Fulfills general education requirement: Liberal Studies Area 1 (History). 3 credits.

**HIS 202. Historical Geography.** An introduction to historical geography and to the concept of historical-geographic change over time in various parts of the world, focusing on prominent scholars and scholarly communities that examine key aspects of contemporary and human physical landscapes, especially with regard to agriculture, land use, urbanization, transportation, settlement, industry, migration, and disease. Prerequisite: Sophomore standing or permission of instructor. 3 credits.

**HIS 205. Early Modern Europe.** Selected themes in the cultural, religious, economic, social, and political history of Europe from the end of the fourteenth century to about 1715. After a brief survey of the late Middle Ages, the course will then address focus on the Renaissance, Reformation, age of discovery, and finally state-making in the seventeenth century. Through the examination of these themes the course will chart the shift in the geographic centers of power in early modern Europe from Mediterranean to Northern Europe and the Atlantic seaboard. Fulfills general education requirement: Writing Process. Prerequisite: Sophomore standing or permission of instructor. 3 credits.



**HIS 206. Revolution and Nationalism.** The course will chart the ways in which the French Revolution and the industrial revolution in Europe shaped the political, economic, social, cultural, and intellectual development of Europe in the nineteenth century. The major themes of the course include the development of the political ideologies that emerged as a result of the French Revolution, industrialization, nationalism, the development of class societies, gradual democratization in parts of Europe, the beginning of the women's movement, challenges to liberalism, and finally, the causes of World War I. Fulfills general education requirement: Writing Process. Prerequisite: Sophomore standing or permission of instructor. 3 credits.

**HIS 207. Europe in the 20th Century.** An introduction to the main political, social, economic and intellectual developments in twentieth-century Europe. The major themes of the course include the experience of the two world wars; the development of fascist and communist regimes under Lenin and Stalin, Mussolini, and Hitler; the weakness of the western democracies after World War I; the Holocaust; the Cold War; the Communist Bloc; the end to colonialism; the European Union; the development of the welfare state, and the new nationalism. Fulfills general education requirement: Writing Process. Liberal Studies Area 1 (History). Prerequisite: Sophomore standing or permission of instructor. 3 credits.

**HIS 210. The History of Modern France, 1750 to the Present.** A study of French history from 1750 to the 1980s. The course provides an overview of the political, social, economic, and cultural history of France from the late eighteenth to the late twentieth century. The course will address a variety of themes from the standpoint of France's place in European history as a whole but also in terms of the uniqueness of the French experience. Some of the themes covered by the course will include: France's revolutionary tradition; the development of a democratic society; the French pattern of gradual industrialization; the persistence of the French peasantry; the socialist movement and syndicalism; the evolution of the radical right; imperialism; French communism; intellectual movements in literature, philosophy and the arts; France and Europe in the post-war period; women in French society; and the role of minorities in France. The course will also examine the ways in which these themes relate to issues confronting contemporary France. Fulfills general education requirement: Liberal Studies Area 1 (History). Prerequisite: Sophomore standing or permission of instructor. 3 credits.

**HIS 215. Law and Government.** This course uses key cases to study important doctrines established by the Supreme Court with respect to the structure and functions of the constitutional system (judicial, legislative and executive power and federalism). There is a particular emphasis on various forms of textual interpretation used by individual justices to apply the Constitution in deciding cases and writing opinions. Fulfills general education requirement: Writing Process. Liberal Studies Area 2 (Social Science). Prerequisites: Sophomore standing or permission of the instructor. PSC 110 recommended. 3 credits. [This course is cross-listed with PSC 215]

**HIS 217. Women in Modern Europe, 1750 to the Present.** An exploration of the position of women in Modern Europe from 1750 to the present. The course focuses around the tensions between women's difference and demands for equal treatment as this theme has played out through history. The course will begin with a discussion of gender in history and then proceed to examination of women in pre-industrial Europe, the French Revolution, the industrial revolution, nineteenth-century reform movements, feminism and the suffrage movement. Twentieth century themes include the "new" woman, women in communist Russia and under the fascist regimes, the impact of two world wars on women's roles, the welfare state, and finally, contemporary feminism. Fulfills general education requirement: Writing Process. Liberal Studies Area 1 (History). Prerequisite: Sophomore standing or permission of instructor. 3 credits.

**HIS 220. Colonial America: a History in Red, White, and Black.** A study of the interactions between three very different cultures--American Indians, Africans, and Europeans--on the North American continent. Emphasis will be on the ideology and methods by which Europeans came to dominate the area, and how both Indians and Africans struggled to preserve their identity in an increasingly white-dominated colonial world. Fulfills general education requirement: Social Diversity Studies. 3 credits.

**HIS 226. Age of Jefferson and Jackson.** How the old republican ideal of a virtuous agrarian society struggled to confront the new age of economic modernization, social diversity and sectional tension. Fulfills general education requirement: Writing Process. Liberal Studies Area 1 (History). Prerequisite: Sophomore standing or permission of instructor. 3 credits.

**HIS 230. Electing the President.** This course uses the current presidential election as a case study from which students can analyze the history of American parties and elections. The course will use political science concepts such as realignment and dealignment to study the rise and fall of the various "party systems" in American history, and will attempt to place the current presidential election within its historical context. Prerequisite: Sophomore standing or permission of instructor. 3 credits.

**HIS 240. American Military History.** An analysis of American military institutions from Old World tradition to the post-Persian Gulf era with emphasis on the U.S. Army. Fulfills general education requirement: Liberal Studies Area 1 (History). Prerequisite: Sophomore standing or permission of instructor. 3 credits.

**HIS 241. Working-Class Studies.** This course incorporates a variety of approaches to working class studies: historical, sociological, cultural, and political. Students will learn about the origins of the modern working class in both 16th century Europe and the slave colonies of the Caribbean. They will also learn about the history and current practice of the labor movement; the different ways workers have organized politically in the past and present; the role of race, gender, national origin, and skill in organizing labor markets and workers' identities; the depiction of workers in the mass media, particularly film. The primary focus of the class will be on the US, but some comparisons to other countries will be made to help highlight what is specifically American about our class system. Fulfills general education requirement: Social Diversity Studies. 3 credits.

**HIS 250. The Historian's Craft.** An introduction to the basics of historical research and writing. The most important goal of the course is to help students produce a clearly written research paper, with footnotes and a bibliography. A primary source paper and other writing assignments will prepare the students for the achievement of this goal. Class discussion will revolve around analysis of various types of primary sources, secondary sources, journal articles, issues of interpretation, and research methods. The course will also include several research trips to libraries, archives, historical societies, or local history collections. Fulfills general education requirement: Writing Process. Prerequisites: at least one of the following: HIS 103, 104, 105, 125, 126 or 127; or permission of the instructor. 3 credits.

**HIS 274. Colonial Latin America.** A survey of Latin American history, society, political economy, and culture from the late colonial period through the Age of Revolution to the early 21st century, including consideration of major themes such as neocolonialism, dependency, race and racism, U.S.-Latin American relations, revolution, military dictatorship, democracy, the environment, indigenous and women's rights, poverty, and related historical and contemporary issues. Fulfills general education requirement: Foreign Studies. Prerequisite: Sophomore standing or permission of instructor. 3 credits.

**HIS 275. Modern Latin America.** Latin American civilization from the emergence of independent states, relationships with the United States and the modern regional distinctions. Fulfills general education requirement: Foreign Studies. Prerequisite: Sophomore standing or permission of instructor. 3 credits.

**HIS 301. Evolution for Everyone.** This course offers students an introduction to evolutionary theory and empirical research, especially as it applies to history and society. Evolution is powerful, elegant and easily understood. The human frame and brain evolved over time, and understanding how that happened will help understand the past and present of society. Fulfills general education requirement: Disciplinary Perspectives. Prerequisite: junior or senior standing. 3 credits.

**HIS 303. Seminar on the History of South Africa.** A seminar on the history of South Africa from the 1600's until the end of apartheid in the early 1990s. Topics include early colonization, conflicts between European settlers and natives and between the English and the Afrikaaner republics, the development of capitalism, the dynamics of black South Africans under apartheid, and the bloody struggle for and against national liberation in the early 1990s. Fulfills general education requirement: Foreign Studies. Prerequisites: Junior standing or permission of the instructor. HIS 273 is recommended. 3 credits.

**HIS 304. Seminar on the History of Brazil.** A study of the history of Brazil from the colonial period through the present day. The primary focus will be on the period from the arrival of the Portuguese Court in 1808 until the "abertura," or re-democratization of the 1980s. Some of the topics that will be covered in the course include: 1) the historical development of the Brazilian nation-state and 2) the development of a Brazilian "national" culture. Thus recurrent themes will include political organization and participation, economic growth and development, nationalism, authoritarianism and re-democratization, social organization and stratification, cultural production, and race relations. Fulfills general education requirement: Foreign Studies. Prerequisites: Junior standing or permission of the instructor, HIS 274 or 275 is recommended. 3 credits.

**HIS 305. History of Mexico.** This course examines Mexican history from before the Spanish conquest to the present day. The approach is chronological, topical, and thematic. Critically engaging with a wide variety of course materials, students will gain specific factual knowledge about Mexican history, including major figures, events, and trends; explore how the histories of the United States and Mexico have grown increasingly entwined; and examine diverse aspects of Mexican history, society, and culture. Fulfills general education requirement: Foreign Studies. Prerequisite: Sophomore standing or permission of the instructor. 3 credits.

**HIS 310. Seminar on World War I.** This course provides an in-depth study of World War I. The topics covered include the causes of the war; the military history of the war; the social, economic, and cultural changes that resulted; the terms and consequences of the peace; and ways in which the memories of the war were constructed. Although the course will focus on Europe where most of the war was fought, students will also examine the impact of the war on Russia and Europe's overseas colonies. Fulfills general education requirement: Writing Process. Prerequisites: Junior or senior standing and one prior history class or permission of the instructor. 3 credits.

**HIS 312. The American Revolution.** An in-depth study of why Americans declared their independence and how they won the Revolution and worked to build a republic in a hostile world of monarchies. Particular attention is paid to major issues on which historians of the period disagree. Fulfills general education requirement: Writing Process. Prerequisite: Sophomore standing or permission of the instructor. 3 credits.

**HIS 315. The Civil War.** A study of how sectional divisions over slavery led to a bloody war and reshaped American society. Fulfills general education requirement: Writing Process. Prerequisites: Junior or senior standing and one prior history class or permission of the instructor. 3 credits.

**HIS 330. The Ruling Class.** This course offers students a chance to explore the origins, histories, institutions, and current practices of the American aristocracy. Students will learn about how the very rich families that currently enjoy enormous hereditary wealth obtained and maintain their fortunes. Students will also investigate the histories and current policies of the institutions that protect and promote the wealthy such as corporations, the stock market, and government. Fulfills general education requirement: Social Diversity Studies. 3 credits.

**HIS 400. Internship.** Field experience related to student's work, research interests, or graduate school plans. A journal and paper in addition to field work are required. Students may take up to 6 credits per semester and up to 12 credits during the summer. Prerequisites: Junior or senior status; overall GPA of at least 2.5; completion of registration forms; approval of internship side by student's advisor prior to registration; approval of department chair. 1-12 credits.

**HIS 460. Undergraduate Research.** This course is designed to provide students in political science, history, and international studies opportunities to obtain credit for engaging in undergraduate research projects under the faculty supervision. Students engage in research projects with faculty on a range of topics, subject to approval of the individual faculty member. Course may be repeated up to a limit of 12 credits; but only up to 6 credits can be applied to the major. Prerequisites: Sophomore standing, 2.5 GPA, and permission of the instructor/chair. 1-3 credits. [This course is cross-listed with PSC/INT 460]

**HIS 499. Senior Seminar in History.** Focus on a theme in history such as World War I, the industrial revolution, or the Enlightenment. These topics will be approached from a variety of perspectives (economic, political, or social for example) and from the viewpoint of many national histories. Class meetings will include discussion of course readings, research methods, and the historiography related to the theme of the course. Students will write a research paper on some aspect of the course topic utilizing a variety of primary and secondary sources and present their research to the class. Fulfills general education requirement: Writing Process. Prerequisites: Senior history majors or permission of instructor. 3 credits.

### *Courses in International Studies*

**INT 100. Introduction to International Studies.** The course will examine global theories that explain patterns of world interaction, cooperation and conflict, and the process of globalization. It places international events into historical context and emphasizes the interrelationships among global institutions and culture. Citizenship at the global, national, and local levels will be emphasized. Fulfills general education requirement: Foreign Studies. 3 credits.

**INT 460. Undergraduate Research.** This course is designed to provide students in political science, history, and international studies opportunities to obtain credit for engaging in undergraduate research projects under the faculty supervision. Students engage in research projects with faculty on a range of topics, subject to approval of the individual faculty member. Course may be repeated up to a limit of 12 credits; but only up to 6 credits can be applied to the major. Prerequisites: sophomore standing, 2.5 GPA, and permission of the instructor/chair. 1-3 credits. [This course is cross-listed with HIS/PSC 460]

**INT 499. Seminar in International Studies.** This seminar will expose international studies majors to readings on issues, events, and theories in International Studies as well as allowing them to pursue a research interest within a broad topic area prescribed for each semester the seminar is given. Each student is required to do independent library research and to make an oral presentation under the direction and guidance of the professor. Students are expected to produce a research paper (minimum of 3000 words) that could be presented at an undergraduate research conference. Fulfills general education requirement: Writing Process. Prerequisites: major in international studies and junior or senior standing. 3 credits.

### *Courses in Italian*

**ITA 101. Elementary Italian I.** Introductory courses in Italian. Aimed at developing basic communicative proficiency in Italian. Also offers insights into Italian-speaking cultures. Fulfills general education requirement: Foreign Language. 3 credits.

**ITA 102. Elementary Italian II.** Second semester of introductory course in Italian. Fulfills general education requirement: Foreign Language. Prerequisite: ITA 101 or equivalent. 3 credits.

### *Courses in Mathematics*

**MAS 099. Presentation Attendance.** The aim of this course is exposure to mathematics beyond the classroom curriculum. The course requirement is attendance at a minimum of six formal presentations on mathematical topics given at conferences, colloquia or symposia at a minimum of two separate events (that is, a conference or event). Presentations should have a title and abstract and may be given by faculty or students; poster sessions do not count. 0 credits.

**MAS 100. Concepts of Mathematics.** A study of a variety of topics in mathematics. Many introduce modern mathematics and most do not appear in the secondary school curriculum. Fulfills general education requirement: Liberal Studies Area 4 (Mathematics). 3 credits.

**MAS 102. Pre-Calculus.** A review of precalculus mathematics including algebra and trigonometry. A student may not receive credit for this course after completing MAS 111, 161, or the equivalent. 3 credits.

**MAS 111. Analysis I.** A calculus sequence for department majors and other students desiring a rigorous introduction to elementary calculus. Fulfills general education requirement: Liberal Studies Area 4 (Mathematics). 4 credits.

**MAS 112. Analysis II.** Second semester of a calculus sequence for department majors and other students desiring a rigorous introduction to elementary calculus. Fulfills general education requirement: Liberal Studies Area 4 (Mathematics). Prerequisite: MAS 111; Corequisites: MAS 113, 114. A student may not receive credit for both MAS 112 and MAS 162. 4 credits.

**MAS 113. Introduction to Mathematical Thinking I.** An introduction to college mathematics for potential mathematical science majors. 1 credit.

**MAS 114. Introduction to Mathematical Thinking II.** Second semester. Introduction to college mathematics for potential mathematical science majors. 1 credit.

**MAS 150. Finite Mathematics.** Introduction to mathematical techniques used in quantitative analysis in business and economics. Topics include sets, linear relations, matrices, linear programming, probability and interest. Fulfills general education requirement: Liberal Studies Area 4 (Mathematics). 3 credits.

**MAS 161. Calculus I.** A calculus sequence covering functions, limits, differentiation, integration and applications. Fulfills general education requirement: Liberal Studies Area 4 (Mathematics). 3 credits.

**MAS 162. Calculus II.** Second semester of a calculus sequence covering functions, limits, differentiation, integration and infinite sets. Fulfills general education requirement: Liberal Studies Area 4 (Mathematics). Prerequisite: MAS 161; A student may not receive credit for both MAS 112 and MAS 162. 3 credits.

**MAS 170. Elementary Statistics.** An introduction to elementary descriptive and inferential statistics with emphasis on conceptual understanding. Fulfills general education requirement: Liberal Studies Area 4 (Mathematics). A student may not receive credit for MAS 170 after completing MAS 372. A student may not receive credit for both MAS 170 and MAS 270. 3 credits.

**MAS 202. Foundations of Mathematics.** Introduction to logic, set theory and proof techniques. Prerequisites: MAS 251 or ASC 281. 3 credits.

**MAS 222. Linear Algebra.** An introduction to linear algebra including systems of equations, vectors spaces and linear transformations. Prerequisites: MAS 112 or MAS 261. 3 credits.

**MAS 251. Discrete Mathematics.** Introduction to mathematical ideas used in computing and information sciences: logic, sets and sequences, matrices, combinatorics, induction, relations and finite graphs. Prerequisites: MAS 112 or MAS 162. 3 credits.

**MAS 261. Calculus III.** Multivariate calculus including partial differentiation, multiple integration, vector fields and vector functions. Prerequisites: MAS 112 or MAS 162. 3 credits.

**MAS 266. Differential Equations.** An introduction to ordinary differential equations. Prerequisites: MAS 112 or MAS 162. 3 credits.

**MAS 270. Intermediate Statistics.** A more advanced version of MAS 170 intended for students with some calculus background. Fulfills general education requirement: Liberal Studies Area 4 (Mathematics). A student may not receive credit for both MAS 170 and MAS 270. 3 credits.

**MAS 311. Real Analysis.** Convergent and divergent series, limits, continuity, differentiability and integrability; Fourier series. Prerequisites: MAS 202, 222, and 251. 3 credits.

**MAS 322. Abstract Algebra.** Introduction to algebraic structures including groups, rings and fields. Prerequisites: MAS 202, MAS 222, and MAS 251. 3 credits.

**MAS 325. Geometry.** Axiomatic development of absolute, Euclidean and non-Euclidean geometries. Prerequisites: MAS 202, MAS 222, and MAS 251. 3 credits.

**MAS 335. Operations Research.** Introduction to some operations research techniques including linear programming, queuing theory, project scheduling, simulation and decision analysis. Prerequisites: MAS 222 or MAS 251 or MAS 202. 3 credits.

**MAS 371. Mathematical Probability.** A mathematical introduction to probability, discrete and continuous random variables, and sampling. Prerequisites: at least two of MAS 222, 251, and ASC 281 or junior standing. 3 credits.

**MAS 372. Mathematical Statistics.** An introduction to the mathematical foundations of statistics including sampling distributions, estimation, hypothesis testing, linear models and multivariate distributions. Prerequisite: MAS 371. 3 credits.

### *Courses in Music*

**MSC 088. Piano Proficiency.** Graded pass/fail. This course may be repeated for credit as topic changes. 0 credits.

**MSC 089. Voice Proficiency.** Graded pass/fail. This course may be repeated for credit as topic changes. 0 credits.

**MSC 099. Recital Attendance.** Designed for music majors and minors and graded on a satisfactory/unsatisfactory basis. Music core course. Graded pass/fail. May be repeated. 0 credits.

**MSC 100. Introduction to Music.** For the non-music major, a survey of Western music designed to increase the individual's musical perception. Fulfills general education requirement: Liberal Studies Area 5 (Literature and Fine Art). 3 credits.

**MSC 101. Fundamentals of Music.** For music minors and non-music majors, an introduction to the rudiments of music: notation, key signatures, theory, aural theory and so forth. Fulfills general education requirement: Liberal Studies Area 5 (Literature and Fine Art). 3 credits.

**MSC 111. Class Guitar for Beginners.** Student provides his or her own instrument. May be repeated for credit. 1 credit.

**MSC 115. Music Theory I.** A study of the rudiments of music and their notation. Harmonization of melodies and basses with fundamental triads. Aspects of form and analysis. Music core course. Prerequisite: audition for admission or permission of the instructor. 2 credits.

**MSC 116. Music Theory II.** A study of diatonic tonal harmony, including all triads and seventh chords, nonharmonic material and elementary modulation. Aspects of form and analysis. Music core course. Prerequisite: MSC 115 or permission of the instructor. 2 credits.

**MSC 117. Aural Theory I.** The singing and aural recognition of intervals, scales, triads and simple harmonic progressions. Music core course. Prerequisite: audition for admission or permission of the instructor. 2 credits.

**MSC 118. Aural Theory II.** A continuation of MSC 117, emphasizing clef reading, modality, modulation and more complicated rhythmic devices and harmonic patterns. Music core course. Prerequisite: MSC 117 or permission of the instructor. 2 credits.

**MSC 201. Music of the United States.** A historical survey of U.S. music emphasizing stylistic developments and illustrative musical examples from colonial times to the present. Includes American musical theater, jazz, folk and popular styles. Fulfills general education requirement: Writing Process. Liberal Studies Area 5 (Literature and Fine Art). 3 credits.

**MSC 202. World Musics.** A general introduction to musical styles, compositional practices, and aesthetics of specific people groups within the Americas, Asia, and Africa. It discusses traditional, popular, and art music styles, and presents music intimately tied to value systems and social practice. Fulfills general education requirement: Foreign Studies. 3 credits.

**MSC 215. Music Theory III.** A study of chromatic tonal harmony, including secondary dominants, augmented sixth chords, tertian extensions, altered chords and advanced modulation. Aspects of form and analysis. Music core course. Prerequisite: MSC 116 or permission of the instructor. 2 credits.

**MSC 216. Music Theory IV.** A study of 20th-century compositional techniques, including modal and whole-tone materials, quartal harmony, polychords, atonality, serialism and various rhythmic and metric procedures. Aspects of form and analysis. Prerequisite: MSC 215 or permission of the instructor. 2 credits.

**MSC 217. Aural Theory III.** A continuation of MSC 118, emphasizing chromatic materials and more complex modulations, chord types, rhythms and meters. Music core course. Prerequisite: MSC 118 or permission of the instructor. 2 credits.

**MSC 218. Jazz Theory.** A study of jazz theory, including notation, extended chords, improvisation and practice. Prerequisites: MSC 115, MSC 116 and MSC 215. 2 credits.

**MSC 233. Diction.** An introduction to the pronunciation of singer's English, German, French, Italian and Latin, utilizing the International Phonetic Alphabet. Required of voice concentration majors, the course is open to other students with permission of the instructor. 2 credits.

**MSC 241. History and Literature of Music I.** A survey course in the history of Western music (in the context of world musics of various cultures), with emphasis on stylistic developments and illustrative musical examples, from early music through the Baroque era. Music core course. 3 credits.

**MSC 242. History and Literature of Music II.** A survey course in the history of Western music (in the context of world musics of various cultures), with emphasis on stylistic developments and illustrative musical examples, from the classical period to the present. Music core course. Fulfills general education requirement: Liberal Studies Area 5 (Literature and Fine Art). 3 credits.

**MSC 246. Principles of Conducting.** Principles of conducting and baton technique. Students conduct ensembles derived from class personnel. Music core course. 2 credits.

**MSC 306. Piano Literature.** A survey of the development of the piano and its literature with emphasis on piano methods books and related materials. 2 credits.

**MSC 315. Counterpoint.** Introductory work in strict counterpoint through three- and four-part work in all the species. 2 credits.

**MSC 316. Keyboard Harmony.** Score reading and the realization of figured bass at the keyboard, transposition and improvisation. Prerequisite: The successful completion of a piano proficiency jury is required for admission to the course. 2 credits.

**MSC 326. Vocal Literature.** A survey of solo vocal literature with emphasis on teaching repertoire. Extensive listening is required. Students may have opportunities to perform the works studied. 2 credits.

**MSC 327. Vocal Pedagogy.** This course prepares the advanced voice student to teach private lessons at the secondary school level. Students are expected to develop vocal exercise procedures, become familiar with suitable teaching repertoire and apply teaching procedures in a laboratory situation. Selected writings in vocal pedagogy and voice therapy will be studied. 2 credits.

**MSC 329. Advanced Form and Analysis.** An advanced course in analysis, focusing on the methodologies and concepts of music design originated by the Austrian theorist Heinrich Schenker. Emphasis is placed on the appropriate use of symbols and terminology in the reading and construction of graphs of complete tonal compositions. Prerequisite: MSC 328 or permission of instructor. 2 credits.

**MSC 343. 20th Century Music.** An advanced course in music history. Beginning with late-19th-century musical developments, the course continues chronologically through the 20th century. Designed for music majors and interested non-majors who read music well. Fulfills general education requirement: Liberal Studies Area 5 (Literature and Fine Art). Prerequisite: MSC 242 or permission of the instructor. 3 credits.

**MSC 345. Advanced Instrumental Conducting.** Emphasis on practical work with instrumental groups. Rehearsal techniques are applied through individual experience. Prerequisite: MSC 246 or permission of the instructor. 2 credits.

**MSC 347. Advanced Choral Conducting.** Emphasis is on advanced technique with and without baton, score preparation, interpretation and pedagogy relating to choral organizations. Prerequisite: MSC 246 or permission of the instructor. 2 credits.

**MSC 351. Organ Literature.** A historical survey of representative organ literature from earliest times to the present day. 2 credits.

**MSC 352. Organ Pedagogy.** Designed with a practical focus, this course surveys various methods of organ teaching. Laboratory teaching and selection of appropriate technical materials for all levels are included. 2 credits.

**MSC 403. Instrumental Pedagogy.** A survey of teaching materials that relate to the student's performance area. Students may be expected to apply teaching procedures in a laboratory situation. May be repeated for credit. 2 credits.

**MSC 405. Instrumental Literature.** A survey of literature (solo and chamber) that relate to the student's performance area. 2 credits.

**MSC 406. Piano Pedagogy.** A practical course that explores fundamental principles necessary to be an effective piano teacher. Subjects include practice techniques, memorization and the selection of appropriate technical materials for both beginners and advanced students. Laboratory teaching may be required of the student. 2 credits.

**MSC 416. Orchestration.** A study of instrumentation and the devices and techniques for scoring transcriptions, arrangements and solos for orchestra and band, with special emphasis on practical scoring for mixed ensembles as they occur in public schools. Laboratory analysis and performance. Scoring of original works. 2 credits.

**MSC 422. Church Music Methods and Administration.** A course that acquaints students with the church music program. Includes the development of a choir program, methods and techniques of rehearsal, budget preparation, and committee and pastoral relationships. 3 credits.

**MSC 510. Class Piano Instruction I.** First course in the sequence designed for music majors with minimal piano skills in preparing for piano proficiency. 1 credit.

**MSC 511. Class Piano Instruction II.** Second course in the sequence designed for music majors in preparing for piano proficiency. Prerequisite: MSC 510 with a minimum of "C-" or better, or permission of the instructor. 1 credit.

**MSC 512. Class Piano Instruction III.** Third course in the sequence designed for music majors in preparing for piano proficiency. Prerequisite: MSC 511 with a minimum of "C-" or better, or permission of the instructor. 1 credit.

**MSC 513. Class Piano Instruction IV.** Fourth course in the sequence designed for music majors in preparing for piano proficiency. Prerequisite: MSC 512 with a minimum of "C-" or better, or permission of the instructor. 1 credit.

**MSC 520. Class Voice Instruction.** Designed for music majors with minimal vocal skills. Preparation for department voice proficiency requirements. 1 credit.

**MSC 530. Individual Instruction.** Voice, Piano, Orchestral and Band Instruments; Jazz studies; theory; composition. Additional fees apply. May be repeated for credit. Enrollment restricted to music majors and minors or by permission of the instructor. 1 credit.

**MSC 540. Individual Instruction.** Voice, Piano, Orchestral and Band Instruments; additional fees apply. May be repeated for credit. Enrollment restricted to music majors. 2 credits.

**MSC 600. Accompanying.** Under the guidance of piano instructor, the piano concentration student prepares accompaniments for recital performance. One credit per semester is given for one solo recital or two half recitals. A maximum of two credits, usually distributed over the last three years, may be earned. 1-2 credits.

**MSC 601. Marching Band.** The principal band experience during the fall semester open to all students based on prior experience. Performs for home football games and selected invitationals. Practical lab experience for music education majors. Satisfies large ensemble requirement. May be repeated for credit (up to 12 credits of music ensembles may be counted toward the degree). 1 credit.

**MSC 602. Symphonic Band.** The principal band experience during the spring semester, open to all students by audition. The Symphonic Band performs original literature and arrangements of standard repertoire. Satisfies large ensemble requirement. May be repeated for credit (up to 12 credits of music ensembles may be counted toward the degree). 1 credit.

**MSC 603. Symphony Orchestra.** Various symphonic literature is studied and performed. In the second semester the orchestra accompanies soloists in a concerto-aria concert and on occasion combines with choral organizations for the performance of a major work. Open to all students by audition. Satisfies large ensemble requirement. May be repeated for credit (up to 12 credits of music ensembles may be counted toward the degree). 1 credit.

**MSC 604. Concert Choir.** Open to all students by audition, the Concert Choir performs all types of choral literature. In addition to local concerts, the Choir tours annually. Satisfies large ensemble requirement. May be repeated for credit (up to 12 credits of music ensembles may be counted toward the degree). 1 credit.

**MSC 605. Chamber Choir.** Open to all students by audition, the Chamber Choir performs chamber vocal literature from madrigals to vocal jazz. May be repeated for credit (up to 12 credits of music ensembles may be counted toward the degree). 1/2 credit.

**MSC 606. College Choir.** Open to all students. The College Choir performs all types of choral literature. Satisfies large ensemble requirement. May be repeated for credit (up to 12 credits of music ensembles may be counted toward the degree). 1 credit.

**MSC 610. Clarinet Choir.** May be repeated for credit (up to 12 credits of music ensembles may be counted toward the degree). 1/2 credit.

**MSC 611. Flute Ensemble.** This course may be repeated for credit as topic changes. 1/2 credit.

**MSC 612. Saxophone Ensemble.** This course may be repeated for credit as topic changes. 1/2 credit.

**MSC 613. Woodwind Quintet.** This course may be repeated for credit as topic changes. 1/2 credit.

**MSC 614. Low Brass Ensemble.** This course may be repeated for credit as topic changes. 1/2 credit.

**MSC 615. Trumpet Ensemble.** This course may be repeated for credit as topic changes. 1/2 credit.

**MSC 616. Percussion Ensemble.** This course may be repeated for credit as topic changes. 1/2 credit.

**MSC 620. String Ensemble.** This course may be repeated for credit as topic changes. 1/2 credit.

**MSC 625. Jazz Band.** This course may be repeated for credit as topic changes. 1/2 credit.

**MSC 626. Small Jazz Ensemble.** This course may be repeated for credit as topic changes. 1/2 credit.

**MSC 630. Guitar Ensemble.** This course may be repeated for credit as topic changes. 1/2 credit.

**MSC 635. Handbell Choir.** This course may be repeated for credit as topic changes. 1/2 credit.

#### *Courses in Music Business*

**MBS 179. Music Business Colloquium.** A first-year through senior-level course for all music business majors. The class is a forum for speakers from the industry and returning summer MBS interns to discuss current events in the music industry. The class is the catalyst for the design and facilitation of the annual music industry conference (LVC-MIC) held each fall. May be repeated for credit. Prerequisites: music business major or permission. 1 credit.

**MBS 371. Introduction to the Music Business.** This course examines how the music business operates, delving into a wide range of issues and areas, such as publishing, record labels, retail, distribution, market research, agents and managers, and current issues in the industry. Fulfills general education requirement: Writing Process. 3 credits.

**MBS 372. Music Copyright, Contracts and Cash.** An in-depth examination of publishing and recording contracts, music copyright law, and music licensing. Prerequisite: MBS 371 or permission of the instructor. 3 credits.

**MBS 373. Music Industry Entrepreneurship.** This course for music business majors explores entrepreneurship in the music industry. The class revolves around the creation of a practical music business and an accompanying detailed business plan that is submitted to a participating financial institution for review. Student teams also engage with actual music businesses to provide marketing, distribution, research, and other services. The class discusses techniques and practices of management, operations, marketing, and other skills needed to run a successful music business. Prerequisites: MBS 371 and 372 (taken in the sophomore year), or permission of the instructor. 3 credits.

**MBS 400. Internship.** May be repeated for credit (up to 12 credits of internship may be counted toward the degree). Prerequisites: Completion of all program requirements and permission of the instructor. 3-12 credits.

#### *Courses in Music Education*

**MED 110. Foundations of Music Education.** This course is a study of foundational matters that shore up an understanding of the music education process in schools, framing philosophical issues cross-culturally and comparatively, so that prospective teachers might grasp a broader and more varied view of music in education across time and place. It will include a balance of the strong traditions of school music programs with the program transitions that are unfolding as society expands into technology and mediates popular culture. One component of the course will be a weekly field experience (two hours per week, minimum) to orient students into practical matters of curriculum and instruction linked to philosophical and theoretical issues. 3 credits.

**MED 223. Brass Techniques.** A study of the brass family. Emphasis on pedagogical techniques. Mixed brass ensemble experience. 2 credits.

**MED 227. Percussion Techniques.** A study of the percussion family. 1 credit.

**MED 280. Field Practicum in Music Education.** Optional supervised field experiences in appropriate settings. May be repeated for credit. Prerequisite: MED 110 and permission. 1-3 credits.

**MED 330. Woodwind Techniques.** A study of the woodwind family. 2 credits.

**MED 331. String Techniques.** A study of the string family. 2 credits.

**MED 333. Methods and Materials, General Music: Elementary.** A comprehensive study of general music teaching at the elementary school level, the philosophy of music education, varied approaches for developing conceptual learning and music skills, creative applications and analysis of materials. 3 credits.

**MED 334. Choral Literature and Methods.** A study of literature, materials and approaches appropriate for choral and general music classes in grades 5-12. Fulfills general education requirement: Writing Process. 3 credits.

**MED 335. Instrumental Literature and Methods.** A study of literature, materials, philosophy and methods applicable to the teaching of instrumental ensembles (including marching band) from elementary through high school levels. 3 credits.

**MED 336. Music Ed. Field Practicum.** Students are placed in schools one hour per week where they are involved in a teaching/learning environment. May be repeated for credit. 1 credit.

**MED 337. Music Teaching and Learning I.** This course is designed to introduce theories of learning with application to music education. Topics include stage and phase theories, theories of musical play and socialization, constructivist theory of meaning making, social learning and reinforcement theories, learning style theories, and theories/strategies of instruction. One component of the course is a weekly field experience in the local schools (one hour per week, minimum) to orient students into practical matters of music instruction and curriculum linked to principles of learning. Current and emerging education technology will be infused in the course. 2 credits.

**MED 437. Music Teaching and Learning II.** This course is designed as the application of learning theories to the teaching of music, with particular focus on elementary/middle (gr. 4-8) and secondary (gr. 9-12) education. Topics include curriculum design, contemporary practices, and instructional materials, with an emphasis on current and emerging technology. One component of the course will be a weekly field experience (one hour per week, minimum) in the local schools. 2 credits.

**MED 441. Student Teaching: Instrumental.** Music education majors spend a semester in the music department of a school district under the supervision of cooperating teachers. 4-8 credits.

**MED 442. Student Teaching: Vocal.** Same as MED 441. 4-8 credits.

### *Courses in Music Recording Technology*

**MRT 177. The Recording Industry.** So you want to be a recording engineer? This class will help you decide. We'll show you the big picture of the industry while offering insights into various career opportunities. You'll also learn what it takes to be an assistant engineer in the studio, observing and helping with recording sessions throughout the semester. 1 credit.

**MRT 277. Recording Engineering I.** The only way to learn engineering and studio production is to dive in and see how it works. You'll engineer tracking and mixing projects as you learn the fundamentals of recording systems - concepts and techniques of console operation, signal flow, session procedures, and signal processors. Prerequisite: PHY 102 or permission. 3 credits.

**MRT 278. Recording Engineering II.** This semester we dig deeper and work on more complex console operations and studio production techniques. You'll learn more about microphone design and technique, signal processing, and audio theory. Got ears? You'll continue developing critical listening skills that are crucial for audio engineers. Prerequisite: MRT 277. 3 credits.

**MRT 373. Electronic Music.** This course is an exploration of electronic music. Subjects covered include: the appreciation and knowledge of electronic music pioneers, MIDI composition, MIDI theory, sound design, synthesis, sampling, sound for video, and studio production integration. Primary software taught is Avid Pro Tools Corequisite: MRT 374. Prerequisite: MRT 278. 3 credits.

**MRT 374. Digital Audio.** This course is an exploration of digital audio technologies. Subjects covered include: audio in the digital domain, digital theory, recording applications, audio editing, mixing, and an appreciation of pioneers in digital audio production. Primary software taught is Avid Pro Tools Corequisite: MRT 373. Prerequisites: MRT 278. 3 credits.

**MRT 377. Mastering Audio.** A mastering engineer takes a completed mix project and tweaks it to perfection using very sophisticated signal processing and a highly developed critical ear. Learn the techniques from a professional mastering engineer who will guide you through the process of learning how to apply the tools while developing your listening skills. Prerequisite: MRT 278. 3 credits.

**MRT 379. Tonmeister Recording.** How do you record an orchestra, or choral ensemble, or string quartet? The Tonmeister approach emphasizes engineering and musical skills by considering room acoustics, musical genres, microphone technique, and methods for on-location recording in order to effectively capture an acoustic performance in a concert hall. Prerequisite: MRT 278. 1 credit.



**MRT 400. Internship.** All MRT majors complete an internship with a company focused in the audio/recording industry. Internships can be taken after completing all junior level class requirements. Internships are offered the senior spring semester or the summer before the senior year. If all coursework is completed, a 12-credit, full-time internship can be pursued, allowing students to relocate for the term. May be repeated for credit (up to 12 credits of internship may be counted toward the degree). Prerequisites: All junior level MRT degree classes, and approval of the internship director and advisor. 3-12 credits.

**MRT 473. Architectural Acoustics.** Audio recording is not possible without an appropriate acoustic environment. We'll investigate the various issues and options involved whether you're improving an existing space or planning new construction. You'll learn how to diagnose the acoustics of a room and design solutions - and we'll start by looking at our own buildings around campus. The final project is a complete design for a studio facility you just might build someday. Prerequisite: MRT 373 and 374, or by permission of the instructor. 3 credits.

**MRT 474. Music Production Seminar.** In this capstone course you will apply everything you've learned to produce a quality recording for an off-campus "client". You'll wear the hats of producer and chief engineer as you learn new techniques, refine the ones you already know, and deal with issues such as musicality, client relations, engineering, organization, and time constraints. Guided by a professional engineer with extensive experience, this course allows you to pull out all the stops to see what you can do. Prerequisite: MRT 373 and 374, or permission of the instructor. 3 credits.

**MRT 475. Musical Frontiers.** An exploration of the sonic fringes of music. Subjects covered include electronic music history, theory, circuit bending, non-traditional instrumentation, avant-garde composition and performance. Works ranging from composers Stockhausen to Yoko Ono will be analyzed. An ensemble will be created culminating with a capstone live performance of the created works. Prerequisites: MRT 373 and 374, or permission of instructor. An interview/audition is required. 3 credits.

### *Courses in Philosophy*

**PHL 110. Introduction to Philosophy.** Examination of major philosophical issues and the ways major philosophers have dealt with them. Fulfills general education requirement: Liberal Studies Area 6 (Religion and Philosophy). 3 credits.

**PHL 120. Basic Logic.** An introduction to the rules of clear and effective thinking. Attention is given to the logic of meaning, the logic of valid inference and the logic of factual inquiry. Main emphasis is upon deductive logic. Students are introduced to the elements of symbolic logic as well as to traditional modes of analysis. 3 credits.

**PHL 210. Ethics.** An inquiry into the central problems of values applied to human conduct, with an examination of the responses of major ethical theories to those problems. Fulfills general education requirement: Writing Process. Liberal Studies Area 6 (Religion and Philosophy). 3 credits.

**PHL 222. American Philosophy.** A survey of philosophical thought in the United States from colonial period to present, with emphasis on the work of Peirce, James, and Dewey. Fulfills general education requirement: Liberal Studies Area 6 (Religion and Philosophy). 3 credits.

**PHL 229. Culture and Conflict in Modern America.** An examination of the social, political, economic and cultural upheaval of the 1960s and 1970s in the historical context. Fulfills general education requirement: Writing Process. Social Diversity Studies. 3 credits.

**PHL 230. Philosophy of Religion.** A study of the issues raised for philosophy by contemporary religious thought. The course examines such topics as faith and reason; faith and culture; and interpretations of revelation, symbolism and religious language. Fulfills general education requirement: Writing Process. Liberal Studies Area 6 (Religion and Philosophy). 3 credits. [This course is cross-listed with REL 230]

**PHL 270. Seminar in the History of Philosophy.** An examination of major periods in the history of philosophy, this requirement for the major will introduce students to both the figures and the methodology of each time period. The specific focus of the course will vary from semester to semester, rotating through the various historical periods. Seminars will include: Ancient Philosophy, Modern Philosophy, the Enlightenment, 19th Century, 20th Century. This course may be repeated for credit as topic changes. Fulfills general education requirement: Writing Process. Prerequisite: one prior course in philosophy. 3 credits.

**PHL 301. Key Authors.** Intensive studies of individual great philosophers or principal schools. Potential authors include Aristotle, Kant, Nietzsche, etc. This course may be repeated for credit as topic changes. Fulfills general education requirement: Writing Process. Prerequisite: one course in philosophy or permission. 3 credits.

**PHL 311. Key Issues.** An intensive study of individual issues within the discipline of philosophy. Topics will vary from semester to semester. Potential issues include: "Nothing," "Women in Philosophy," "God," "Post-modern Philosophy and Theology," "Existentialism," etc. This course may be repeated for credit as topic changes. Fulfills general education requirement: Writing Process. Prerequisite: One prior course in Philosophy. 3 credits.

**PHL 345. Political Philosophy.** Students in this course study the development of Western political thought from Classical Greece to modern times, examining the conceptual evolution of citizenship, civic obligation, and the nature of justice and exploring the connection between moral and positive law in the western tradition. Fulfills general education requirement: Writing Process. Disciplinary Perspectives. Prerequisite: Junior or senior standing. 3 credits. [This course is cross-listed with PSC 345]

**PHL 349. The Holocaust: a Case Study in Social Ethics.** This course examines the moral responsibility of institutions in German society, 1939-1945, for acquiescing to and perpetrating the state-sanctioned killing of European Jews and others. Fulfills general education requirement: Writing Process. Disciplinary Perspectives. 3 credits.

**PHL 417. Seminar in Law.** This capstone seminar examines the historical and philosophical development of constitutional law in the United States; the seminar emphasizes the dynamic relationship between the law and moral and political philosophy. Fulfills general education requirement: Writing Process. Prerequisites: PSC/PHL 345 and junior or senior standing. 3 credits. [This course is cross-listed with PSC 417]

**PHL 499. Senior Seminar.** This is an advanced seminar course for senior philosophy majors. Students will complete a major paper, integrating their research, writing, and analytical skills. Fulfills general education requirement: Writing Process. 3 credits. [This course is cross-listed with REL 499]

### *Courses in Physical Therapy*

**PHT 311. Fundamentals of Anatomy.** This course is designed to introduce students to the basics of human anatomy. The course will cover human muscle origins, insertions, and actions as well as describing in depth systemic anatomy of the skeletal, circulatory, -respiratory, renal, reproductive, and nervous systems. The course will use a traditional lecture format and both anatomical models and computer software to aid in learning course material. Prerequisite: BIO 112 and permission of the instructor. 4 credits.

**PHT 412. Psychosocial Aspects of Disease and Disability.** A survey course of the psychosocial implications of illness and disability. Specific attention is given to cultural differences, adjustment models, family stress from caregiving, family violence, and normal grieving processes. Fulfills general education requirement: Disciplinary Perspectives. 3 credits.

**PHT 502. Professional Issues of Physical Therapy Practice I.** Introduces students to key professional ethical and practice issues, including communication and health policy. 3 credits.

**PHT 504. Professional Issues of Physical Therapy Practice II.** Continued study of professional ethical and practice issues and patient care documentation. Students develop an understanding of the impact of ethical decision-making through self-discovery and teaching. Theories of teaching and learning are introduced as a basis to understand the learning process and to investigate patient education in physical therapy practice. 4 credits.

**PHT 511. Human Anatomy.** Explores human neuromusculoskeletal, cardiovascular, pulmonary, and integumentary systems. Laboratory exercises include cadaveric dissection. Prerequisites: GPA greater than 3.0. 5 credits.

**PHT 514. Pathophysiology.** Examines basic human pathology and medical principles, including, but not limited to, inflammation, infection, systemic conditions, diagnostic imaging, genetics, and clinical laboratory tests. 4 credits.

**PHT 516. Biomechanics and Kinesiology.** Examines tissue and joint structure and function, and the mechanical principles involved in human motion. The laboratory portion will introduce students to the basics of postural and gait assessment. Prerequisite: PHT 312. 4 credits.

**PHT 518. Exercise Science.** Examines skeletal muscle structure and function and cardiovascular, respiratory, and neuromusculoskeletal physiology related to physical activity and exercise in general and special patient/client populations. Current methods of nutritional and physical assessment will be evaluated. 3 credits.

**PHT 520. Motor Control Motor Learning.** This course will focus on the processes that govern human movement acquisition and control across the lifespan and will prepare students to apply principles of motor development, motor control, and motor learning to clinical practice. Emphasis will be placed on developing a working knowledge of the neural, physical, and behavioral aspects of human movement and the process involved in acquiring and refining motor skills across the lifespan. 2 credits.

**PHT 532. Clinical Examination.** An introduction to the tests and measurements used by physical therapists in the clinical and research settings. Laboratory sessions will provide the student with an opportunity to integrate concepts and apply the therapeutic interventions discussed in lecture. 4 credits.

**PHT 534. Cardiovascular-Pulmonary Physical Therapy.** Examines the physical therapy management of individuals with cardiac and respiratory dysfunction. Particular attention is focused on exercise prescription, patient management in various clinical settings, current medical and surgical procedures, and guidelines and education for inpatient and outpatient rehabilitation. 4 credits.

**PHT 542. Pharmacology in Rehabilitation.** Provides a general introduction to pharmacological principles including basic pharmacokinetics and pharmacodynamics. Descriptions of general classes of medications and their impact and utilization in rehabilitation are stressed. 2 credits.

**PHT 550. Evidence Based/Critical Inquiry Physical Therapy I.** Provides a critical appreciation of basic science, clinical, and grounded theory research to the evolution of physical therapy as an evidence based clinical health professional discipline. 2 credits.

**PHT 560. Clinical Education and Practice I.** This course serves as the orientation to Clinical Education and Practice for the Doctor of Physical Therapy Program. Students will be introduced to performance expectations and requirements for clinical education, the practice of self-reflection, health-care privacy and confidentiality, Standard Precautions and health-care safety, professional communication and interactions, and the clinical site selection process. Graded pass/fail. 1 credit.

**PHT 595. Student Run Free Clinic I.** This is one of a series of courses offered to all physical therapy students in the graduate phase of the program who are interested in participating in the LVC student run free physical therapy clinic for individuals who are underinsured/ uninsured in the community. Students have the opportunity to work with patients throughout the semester, as well as manage all aspects of the clinic. Students will be supervised throughout the experience by licensed physical therapists. Students will be required to undergo HIPPA, OSHA, Standard Precautions, and CPR training and demonstrate competency in all areas prior to working in the clinic. Graded pass/fail. 0 credits.

**PHT 596. Student Run Free Clinic II.** This is one of a series of courses offered to all physical therapy students in the graduate phase of the program who are interested in participating in the LVC student run free physical therapy clinic for individuals who are underinsured/ uninsured in the community. Students have the opportunity to work with patients throughout the semester, as well as manage all aspects of the clinic. Students will be supervised throughout the experience by licensed physical therapists. Students will be required to undergo HIPPA, OSHA, Standard Precautions, and CPR training and demonstrate competency in all areas prior to working in the clinic. Graded pass/fail. 0 credits.

### *Courses in Physics*

**PHY 100. Physics and Its Impact.** A course that acquaints the student with some of the important concepts of physics, both classical and modern, and with the scientific method, its nature and its limitations. The role of physics in the history of thought and its relationships to other disciplines and to society and government are considered. The weekly two-hour laboratory period provides experience in the acquisition, representation and, analysis of experimental data and demonstration of the physical phenomena with which the course deals. Fulfills general education requirement: Liberal Studies Area 3 (Natural Science). 4 credits.

**PHY 101. Fundamentals of Physics I.** An introduction to the fundamental concepts and laws of the various branches of physics including mechanics, heat, sound, electricity, magnetism, optics and atomic and nuclear structure with laboratory work in each area. Emphasis and applications appropriate for music recording technology majors. Fulfills general education requirement: Liberal Studies Area 3 (Natural Science). 4 credits.

**PHY 102. Fundamentals of Physics II.** A continuation of the introduction to the fundamental concepts and laws of the various branches of physics including mechanics, heat, sound, electricity, magnetism, optics, and atomic and nuclear structure with laboratory work in each area. Emphasis and applications appropriate for music recording technology majors. Fulfills general education requirement: Liberal Studies Area 3 (Natural Science). Prerequisite: PHY 101 or equivalent. 4 credits.

**PHY 103. General College Physics I.** An introduction to the fundamental concepts and laws of the various branches of physics, including mechanics, heat, sound, electricity, magnetism, optics, and atomic and nuclear structure, with laboratory work in each area. Fulfills general education requirement: Liberal Studies Area 3 (Natural Science). Corequisite: PHY 105. 3 credits.

**PHY 104. General College Physics II.** A continuation of PHY 103. Fundamental concepts and laws of the various branches of physics, including mechanics, heat, sound, electricity, magnetism, optics, and atomic and nuclear structure, with laboratory work in each area. Fulfills general education requirement: Liberal Studies Area 3 (Natural Science). Prerequisite: PHY 103 or equivalent. Corequisite: PHY 106. 3 credits.

**PHY 105. General College Physics I Laboratory.** Laboratory course to cover the fundamental concepts and laws of the various branches of physics, including mechanics, heat, sound, electricity, magnetism, optics, and atomic and nuclear structure. Fulfills general education requirement: Liberal Studies Area 3 (Natural Science). Corequisite: PHY 103. 1 credit.

**PHY 106. General College Physics II Laboratory.** A continuation of PHY 105. Laboratory course to cover the fundamental concepts and laws of the various branches of physics, including mechanics, heat, sound, electricity, magnetism, optics, and atomic and nuclear structure. Fulfills general education requirement: Liberal Studies Area 3 (Natural Science). Corequisite: PHY 104. 1 credit.

**PHY 111. Principles of Physics I.** An introductory course in classical physics, designed for students who desire a rigorous mathematical approach to college physics. Calculus is used throughout. The first semester is devoted to mechanics and heat with laboratory work in each area. Fulfills general education requirement: Liberal Studies Area 3 (Natural Science). Prerequisite or corequisite: MAS 111 or 161. 4 credits.

**PHY 112. Principles of Physics II.** Second semester of Principles of Physics. An introductory course in classical physics, designed for students who desire a rigorous mathematical approach to college physics. Calculus is used throughout. The second semester is devoted to electricity, magnetism and optics with laboratory work in each area. Fulfills general education requirement: Liberal Studies Area 3 (Natural Science). Prerequisite: PHY 111 and MAS 111 or 161. 4 credits.

**PHY 120. Principles of Astronomy.** An introduction to the forces that shape the solar system and the universe as well as the tools used to observe them. It presents a comprehensive review of the modern scientific view of the physical universe. Topics include the history of astronomy, astronomical technology, and the structure and evolution of astrophysical systems including the solar system, Sun, other stars, and galaxies. Laboratory work required. Fulfills general education requirement: Liberal Studies Area 3 (Natural Science). 4 credits.

**PHY 211. Atomic and Nuclear Physics.** An introduction to modern physics, including special relativity, the foundation of atomic physics, quantum theory of radiation, the atomic nucleus, radioactivity and nuclear reactions, with laboratory work in each area. Prerequisite: PHY 102, 104 or 112, MAS 111 or 161 or permission. 4 credits.

**PHY 212. Introduction to Electronics.** The physics of electrons and electronic devices, including diodes, transistors, power supplies, amplifiers, oscillators, switching circuits, and integrated circuits, with laboratory work in each area. Prerequisite: PHY 102,104 or 112, or permission. 4 credits.

**PHY 261. Introduction to Computational Physics.** An introduction to the approximate numerical solution of physical problems with computers. The course focuses on problems from mechanics, electromagnetics, and quantum mechanics that are not analytically solvable. Topics include realistic projectile motion, planetary motion, and electromagnetic fields produced by charge and current distributions. Prerequisites: PHY 102,104, or 112 and MAS 111 or 161. 3 credits.

**PHY 302. Optics.** A study of the physics of light, with emphasis on the mathematics of wave motion and the interference, diffraction and polarization of electromagnetic waves. The course also includes geometric optics with applications to thick lens, lens systems and fiber optics. Prerequisites: PHY 112 and either MAS 112 or MAS 162. 3 credits.

**PHY 304. Thermodynamics.** A study of the physics of heat, with emphasis on the first and second laws of thermodynamics. Applications of thermodynamics to physics and engineering are included. Elements of kinetic theory and statistical physics are developed. Prerequisites: PHY 112 and either MAS 112 or MAS 162. 3 credits.

**PHY 311. Analytical Mechanics I.** A rigorous study of classical mechanics, including the motion of a single particle, the motion of a system of particles and the motion of a rigid body. Damped and forced harmonic motion, the central force problem, the Euler description of rigid body motion and the Lagrange generalization of Newtonian mechanics are among the topics treated. Prerequisites: PHY 111 and MAS 266. 3 credits.

**PHY 312. Analytical Mechanics II.** Second semester of a rigorous study of classical mechanics, including the motion of a single particle, the motion of a system of particles and the motion of a rigid body. Damped and forced harmonic motion, the central force problem, the Euler description of rigid body motion and the Lagrange generalization of Newtonian mechanics are among the topics treated. Prerequisites: PHY 111 and MAS 266. 3 credits.

**PHY 321. Electricity and Magnetism I.** Theory of the basic phenomena of electromagnetism together with the application of fundamental principles of the solving of problems. The electric and magnetic properties of matter, direct current circuits, alternating current circuits, the Maxwell field equations and the propagation of electromagnetic waves are among the topics treated. Prerequisite: PHY 112, MAS 261, and MAS 266. 3 credits.

**PHY 322. Electricity and Magnetism II.** Second semester of the theory of the basic phenomena of electromagnetism together with the application of fundamental principles of the solving of problems. The electric and magnetic properties of matter, direct current circuits, alternating current circuits, the Maxwell field equations and the propagation of electromagnetic waves are among the topics treated. Prerequisites: PHY 112, MAS 261, MAS 266. 3 credits.

**PHY 327. Experimental Physics I.** Experimental work selected from the area of mechanics, AC and DC electrical measurements, optics, atomic physics, and nuclear physics, with emphasis on experimental design, measuring techniques and analysis of data. Prerequisite: PHY 211. 1 credit.

**PHY 328. Experimental Physics II.** Second semester of experimental work selected from the areas of mechanics, AC and DC electrical measurements, optics, atomic physics, and nuclear physics, with emphasis on experimental design, measuring techniques and analysis of data. Fulfills general education requirement: Writing Process. Prerequisite: PHY 211. 2 credits.

**PHY 350. Audio Electronics.** Somebody has to design, install, and maintain the complex audio systems used in the industry. You'll learn about system design for sound reinforcement, cabling and interfacing for recording studios, basic troubleshooting and electronics, tests and measurements, and other behind-the-gear issues. Prerequisite: PHY 212 and MRT 278. 3 credits.

**PHY 421. Quantum Mechanics I.** A study of selected topics in modern physics, utilizing the methods of quantum mechanics. The Schrodinger equation is solved for such systems as potential barriers, potential wells, the linear oscillator and the hydrogen atom. Perturbation techniques and the operator formalism of quantum mechanics are introduced where appropriate. Prerequisites: PHY 211 and MAS 266, or permission. 3 credits.

**PHY 422. Quantum Mechanics II.** Second semester of a study of selected topics in modern physics, utilizing the methods of quantum mechanics. The Schrodinger equation is solved for such systems as potential barriers, potential wells, the linear oscillator and the hydrogen atom. Perturbation techniques and the operator formalism of quantum mechanics are introduced where appropriate. Prerequisites: PHY 211 and MAS 266, or permission. 3 credits.

### *Courses in Political Science*

**PSC 100. Introduction to Political Science.** This course is designed as a broadly-based introduction to the discipline of political science. It will acquaint students with the concepts, structures, trends, and belief systems that form the basis of political activity throughout the world. Those taking the course will leave with an enhanced understanding of - if not appreciation for - the multiple ideologies, institutions, issues, and actors that shape and drive politics. Fulfills general education requirement: Liberal Studies Area 2 (Social Science). 3 credits.

**PSC 110. American National Government.** This course provides a survey of key developments, institutions, and issues in American politics. Topics include the ideas that shaped the original American political system, the presidency; Congress and federal courts; the operation of political parties and interest groups; domestic and foreign policy debates; and contemporary issues such as civil rights and affirmative action. Fulfills general education requirement: Liberal Studies Area 2 (Social Science). 3 credits.

**PSC 207. Europe in the 20th Century.** An introduction to the main political, social, economic and intellectual developments in twentieth-century Europe. The major themes of the course include the experience of the two world wars; the development of fascist and communist regimes under Lenin and Stalin, Mussolini, and Hitler; the weakness of the western democracies after World War I; the Holocaust; the Cold War; the Communist Bloc; the end to colonialism; the European Union; the development of the welfare state, and the new nationalism. Fulfills general education requirement: Writing Process. Liberal Studies Area 1 (History). Prerequisite: Sophomore standing or permission of instructor. 3 credits. [This course is cross-listed with HIS 207]

**PSC 210. Comparative Politics.** This is an introduction to the study of comparative politics: the comparison of political systems in order to understand how and why these systems function differently. The course is built around three fundamental questions: What is comparative politics? What kinds of phenomena do we compare? What are the major theoretical approaches that guide our studies? We also examine distinctions between the "developing" and the "developed" worlds, and between authoritarian and democratic political regimes. Prerequisites: Sophomore standing or permission of the instructor. 3 credits.

**PSC 211. The Developing Nations.** A survey of the developing nations of Latin America, Asia, Africa, and the Middle East. This class explores why some countries are "developed" and others not. The course examines some of the major explanations for development, both economic and political. Following an overview of each of the developing regions, the class will analyze some of the major issues facing developing nations today. Topics include democratization, religion and politics, ethnic conflict, women and development, and revolution. Fulfills general education requirement: Writing Process. Foreign Studies. Prerequisites: Sophomore standing or permission of the instructor. 3 credits.

**PSC 212. Politics of Latin America.** The course is designed as an introduction to Latin American politics. We focus on two major trends that have characterized the region throughout its post-independence history: episodic waves of political democratization and democratic breakdown, and a common but changing series of economic systems. We also examine the political role played by the military, the quest for political equality among various groups in society, and the evolving political and economic relationships between Latin America and the U.S. Fulfills general education requirement: Foreign Studies. 3 credits.

**PSC 213. Politics of the Middle East.** Sometimes called the cradle of civilization, the Middle East is home to approximately 330 million people, vast oil resources, and the world's fastest-growing religion. It also faces formidable political, social, and economic challenges. In fact, it may well be the most contentious region in the world today. This course examines selected domestic and international political developments in the modern Middle East. We discuss Arabism, political Islam, secular-religious tensions within and between Middle East states, and state-society relations (e. G., opposition movements, human rights, gender issues). We also analyze international relations within and without the region, namely the Arab-Israeli conflict, the Iraq-Iran conflict, and U.S. foreign policy toward the region (including the impact of the war on terrorism). We will supplement our readings and discussions with several films and periodic guest speakers (depending upon availability). An underlying theme of the course is the potential for democratization in the Middle East. Fulfills general education requirement: Foreign Studies. 3 credits.

**PSC 215. Law and Government.** This course uses key cases to study important doctrines established by the Supreme Court with respect to the structure and functions of the constitutional system (judicial, legislative and executive power and federalism). There is a particular emphasis on various forms of textual interpretation used by individual justices to apply the Constitution in deciding cases and writing opinions. Fulfills general education requirement: Writing Process. Liberal Studies Area 2 (Social Science). Prerequisites: Sophomore standing or permission of the instructor. PSC 110 recommended. 3 credits. [This course is cross-listed with HIS 215]

**PSC 230. Electing the President.** This course uses the current presidential election as a case study from which students can analyze the history of American parties and elections. The course will use political science concepts such as realignment and de-alignment to study the rise and fall of the various "party systems" in American history, and will attempt to place the current presidential election within its historical context. Prerequisites: Sophomore standing or permission of the instructor. 3 credits.

**PSC 245. International Relations.** This course is designed to introduce students to the study of international relations. The course hinges on a series of questions: Who are the principal actors in the international system? What are the theoretical ways of discerning why these actors do what they do? How has the international system evolved into its present form? What are the central issues confronting the international system? Fulfills general education requirement: Liberal Studies Area 2 (Social Science). 3 credits.

**PSC 250. Public Policy Analysis.** This course describes the public policy process and analyzes various areas of substantive domestic policy at the national level. Topics covered include budgeting and taxation, education, health, welfare, and the environment. Fulfills general education requirement: Writing Process. Liberal Studies Area 2 (Social Science). Prerequisites: sophomore standing and PSC 110 or permission of the instructor. 3 credits.

**PSC 255. Public Administration.** Probably no aspect of the U.S. political system has been more vilified than governmental bureaucracy. Yet public administrators are the main touchstones with government for most citizens. Whether it is cops on the beat, firefighters responding to a five-alarm fire, or a host of other jobs in the public sector, the fact is that we depend on the skills and dedication of government employees for the delivery of services in our everyday lives. Given its centrality to the understanding of the political process, this course is of value to all citizens in a democracy, and will be particularly useful for students who are interested in going into government work. We explore the relationship between the political environment and the bureaucrat, study the chief functions of the working bureaucracy, and give students a better feel for the dilemmas facing administrators in a public environment through the use of case studies and simulations. 3 credits.

**PSC 261. Congress and the Presidency.** The aim of this course is to provide a comprehensive understanding of the political operations of the U.S. Congress and the presidency and the extent to which they cooperate and compete with each other for influence in the political system. Prerequisite: sophomore standing or permission of the instructor 3 credits.

**PSC 312. American Foreign Policy.** This course examines key theories and contexts that shape American foreign policy strategy and important questions of foreign policy politics. It exposes students to foreign policy strategy as the means by which U.S. national interests and policies are formulated and to foreign policy politics as the roles played by institutions and actors within the foreign policymaking process. Fulfills general education requirement: Writing Process. Prerequisites: Sophomore standing or permission of the instructor. 3 credits.

**PSC 313. Contemporary Global Security.** This course will examine contemporary conflict and the use of force in world politics. It introduces two schools of thought (security studies and strategic studies) and examines theories and concepts used to understand contemporary global security. Fulfills general education requirement: Writing Process. Prerequisite: Sophomore standing or permission of the instructor. 3 credits.

**PSC 316. Civil Liberties and Civil Rights.** This course uses key cases to study important doctrines established by the Supreme Court with regard to civil rights and civil liberties. Students will examine the Court's rulings concerning the establishment and free exercise of religion, protection of freedom of speech and of the press, privacy rights (abortion and sexual freedom), the rights of the accused in the criminal justice system, and the law governing racial or sexual discrimination. The course places particular emphasis on various forms of textual interpretation used by individual justices to apply the Constitution in deciding cases and writing opinions. Fulfills general education requirement: Writing Process. Social Diversity Studies. Prerequisites: Sophomore standing or permission of the instructor. PSC 215 recommended. 3 credits.

**PSC 330. State and Local Government.** Governmental institutions, characteristics of state and local political systems and the major inter-governmental problems in state and local relations with federal government. Fulfills general education requirement: Writing Process. Liberal Studies Area 2 (Social Science). Prerequisites: Sophomore standing and PSC 110 or permission of the instructor. 3 credits.

**PSC 345. Political Philosophy.** Students in this course study the development of Western political thought from Classical Greece to modern times, examining the conceptual evolution of citizenship, civic obligation, and the nature of justice and exploring the connection between moral and positive law in the western tradition. Fulfills general education requirement: Writing Process. Disciplinary Perspectives. Prerequisite: Junior standing or permission of the instructor. 3 credits. [This course is cross-listed with PHL 345]

**PSC 370. Research Methods in Political Science.** This is an introduction to the design and evaluation of political research: formulating clear hypotheses, developing appropriate measures, and analyzing data using simple statistical methods and qualitative techniques; emphasizes clear exposition of arguments, interpretation, and findings. Prerequisite: Junior standing or permission of the instructor. 3 credits.

**PSC 380. EU Simulation.** This course will offer an enriching, hands-on, interdisciplinary exploration of the dynamic processes of policy formation in the core institutions of the European Union. Students will prepare for participation in the simulation held each November in Washington D.C., organized by the Mid-Atlantic European Union Simulation Consortium (MEUSC). This experiential learning program endeavors to connect American students to EU policy makers and policy making in a unique way, utilizing the simulation experience to bridge the gap between the academic study of the EU and the actual political processes of the European Union. Students will be engaged in discussions and debates about the EU that are current and topical in EU decision-making circles. A distinct theme is chosen as the focus of the simulation each year. This course may be repeated for credit as topic changes. Fulfills general education requirement: Disciplinary Perspectives. Prerequisite: Junior or Senior standing. Course may be repeated for credit. 3 credits.

**PSC 400. Internship.** Field experience in a political science environment. May be repeated for credit (up to 12 credits of internship may be counted toward the degree). Prerequisite: GPA of 2.50 in major and permission of department chair. Students taking more than six internship credits in political science please note: PSC 400 may count for no more than two elective courses in the PSC major. 1-12 credits.

**PSC 417. Seminar in Law.** This capstone seminar examines the historical and philosophical development of constitutional law in the United States; the seminar emphasizes the dynamic relationship between the law and moral and political philosophy. Fulfills general education requirement: Writing Process. Prerequisites: PSC/PHL 345 and junior or senior standing. 3 credits. [This course is cross-listed with PHL 417]

**PSC 460. Undergraduate Research.** This course is designed to provide students in political science, history, and international studies opportunities to obtain credit for engaging in undergraduate research projects under the faculty supervision. Students engage in research projects with faculty on a range of topics, subject to approval of the individual faculty member. Course may be repeated up to a limit of 12 credits; but only up to 6 credits can be applied to the major. Prerequisites: Sophomore standing, 2.5 GPA, and permission of the instructor/chair. 1-3 credits. [This course is cross-listed with HIS/INT 460]

**PSC 498. Seminar in Politics.** This seminar allows junior and senior political science majors to pursue a research interest within a broad topic area prescribed for each semester the seminar is given. Students will present their work at an undergraduate research conference hosted by a regional university. Fulfills general education requirement: Writing Process. Prerequisites: Major in political science and junior or senior standing or permission of the instructor. 3 credits.

#### *Courses in Psychobiology*

**PBI 378. Behavioral Neuroscience.** A study of the biological basis (substrates) of behavioral processes. The course focuses on the physiology of reflexes, sensation and perception, learning and memory, sleep, ingestive behaviors, emotion and psychopathology. Prerequisites: PSY 111, 112, 211, and 212 or permission. 3 credits.

**PBI 379. Behavioral Neuroscience Lab.** Students will be introduced to methods used in the study of the nervous system and its influence on behavior. Lab work will include collecting, analyzing, and reporting data from physiological studies, as well as sheep brain dissection and stereotaxic neurosurgery. In addition, students must complete an APA style proposal for an individual research project. Take PSY-111 PSY-112 PSY-211 PSY-212 students must also have either taken or be enrolled in PBI-378. This course is cross-listed with PSY-379. 1 credit.

**PBI 499. Psychobiology Seminar.** Readings, discussions, and reports on selected topics in psychobiology. May be repeated for credit. Prerequisite: Permission. 1 credit.

#### *Courses in Psychology*

**PSY 111. General Psychology I.** This laboratory course is designed as an introduction to the conceptual and methodological foundations of psychological science. Through an exploration of several content areas in psychology, including physiological psychology, sensation & perception, learning, cognition, and states of consciousness, the course provides a conceptual background for understanding behavior, and active engagement with the scientific process (including theory building, hypothesis testing and critical analysis of empirical data). Fulfills general education requirement: Liberal Studies Area 3 (Natural Science). 4 credits.

**PSY 112. General Psychology II.** This survey course examines the relationship between research and theory in the field of psychology, with emphasis on the field of applied psychology. Individual and societal influences on physical and psychological health will be examined. Topics will include psychological testing, personality theory, intelligence, motivation and emotion, social behavior, and psychological disorders and treatment. 3 credits.

**PSY 180. Child Development and Education.** A survey of major ideas in child development and educational psychology, with an emphasis on classroom applications. Topics include human development, intelligence, language, learning, memory, motivation, social and cultural contexts of development, and assessments. 3 credits.

**PSY 201. Sophomore Seminar.** This course is designed to help clarify students' interest and long-term plans for the field of psychology. Topics include identifying the academic and interpersonal abilities necessary to become a successful student at the undergraduate level and beyond, reviewing the broad skills and values related to different careers in psychology, preparing students for the different elements of job searching and applying to graduate school, exploring employment options in psychology available to individuals with bachelor's and graduate degrees, and reflecting on one's own skills/interests to develop a general career plan for their post-collegiate life. Graded pass/fail. Prerequisite: PSY 111, or permission of the instructor. 1 credit.

**PSY 211. Research Methods in Psychology.** This foundational laboratory course introduces students to scientific methodology and experiment design as it applies to psychology. Students learn how to identify research questions through literature reviews, develop hypotheses, appropriately design and conduct research projects, and draw conclusions from the findings. The course engages students in data-collection laboratory experiences that culminate in the development, execution, analysis and APA-style presentation of an original experiment on a behavior-related topic of their own choosing. Fulfills general education requirement: Writing Process. Prerequisite: PSY 111 or permission of the instructor. 4 credits.

**PSY 212. Statistics and Data Analysis.** This laboratory course explores the basic quantitative and qualitative statistics and data-based analytical methods used by scientists to interpret and understand behavior. Topics include the logic of the scientific method applied to data analysis, descriptive statistics, the foundations and utility of inferential statistics, and the statistical methodologies of simple and advanced hypothesis testing. Students will also design, analyze, and present the results of their own original data-collection project. Prerequisite: PSY 111, or permission of the instructor. 4 credits.

**PSY 230. Psychology of Adolescent Development.** A study of the psychological characteristics and changes occurring during adolescence. Topics include psychological development, social influences, cognitive and intellectual development, identity and self-concept, sexual development, values and transition to adulthood. Prerequisite: PSY 111, or permission of the instructor. 3 credits.

**PSY 235. Psychology of Adult Development and Aging.** A study of research, literature, and theories concerned with psychological change in the adult, from early adulthood to death. Current research methods and findings are covered in the areas of physical, cognitive, personality, and social changes in the adult years. Prerequisite: PSY 111, or permission of the instructor. 3 credits.

**PSY 245. Personality.** A study of the major theories of personality, with emphasis on psychoanalysis, humanistic psychology, behaviorism, social learning, and trait theory. Fulfills general education requirement: Writing Process. Prerequisite: PSY 111, or permission of the instructor. 3 credits.

**PSY 247. Psychological Perspectives on Gender.** This course is designed to address a broad spectrum of issues related to the psychology of gender. Of central importance is the examination of empirical findings related to gender differences and similarities in biological, behavioral, cognitive, social, and emotional domains. The course will also involve a critical examination of the meaning of gender in the field of psychology and in the broader society. Fulfills general education requirement: Social Diversity Studies. Prerequisite: PSY 111, or permission of the instructor. 3 credits.

**PSY 248. Health Psychology/Behavioral Medicine.** This course is designed as an introduction to health psychology/behavioral medicine. It will consider the role of psychology in the health field, including medical settings. It covers the relationship between psychological factors and physical disease from predisposition through maintenance. The study of behavioral medicine will include treatment of stress and stress-related disorders, preventive health behaviors and factors related to adherence of treatment programs. It also explores the psychological connections of pain and pain management, and how personal control is related to both health and the disease process. Prerequisite: PSY 111, or permission of the instructor. 3 credits.

**PSY 250. Sensory and Perceptual Processes.** Surveys structures and functions of, and research strategies to examine, the various sensory systems with particular emphasis on the visual system. Physiological and philosophical aspects of perception are discussed. Prerequisite: PSY 111, or permission of the instructor. 3 credits.

**PSY 252. The Science of Emotion.** This course covers the philosophical, psychological, scientific foundations and Implications of the emotion process. This course covers a) several key questions in the science of emotion, b) scientific approaches to the study of emotion, c) several processes associated with the emotion process, and d) major theories of emotion. Prerequisite: PSY 111, or permission of the instructor. 3 credits.

**PSY 255. Evolutionary Psychology.** This course is an approach to psychology in which knowledge and principles from evolutionary biology are used to research the structure of the human mind. Topics will include the adaptive problems of survival, mating, parenting, kinship, cooperation, warfare, and conflict between the sexes. Prerequisite: PSY 111, or permission of the instructor. 3 credits.

**PSY 260. Learning and Memory.** This course explores various processes involved in knowledge acquisition, storage, and retrieval. Specific topics include associative learning mechanisms, the impact of reinforcement and punishment on behavior, generalization and discrimination, memory encoding, long-term memory storage and retrieval, memory distortions, and the sources of individual differences in learning and memory. Prerequisite: PSY 111, or permission of the instructor. 3 credits.

**PSY 265. Abnormal Behavior and Experience.** A study of mental, emotional and behavioral problems, including alcohol and drug abuse, brain disorders, criminal and psychopathic behavior, neuroses, psychophysiological reactions, psychoses, sexual deviations, subnormal intelligence and suicide. Prerequisite: PSY 111, or permission of the instructor. 3 credits.

**PSY 268. Introduction to Clinical Psychology.** A study of the ways psychologists assist persons and groups. Particular attention is given to assessment, individual and group therapy, marriage and family counseling, and community psychology. Prerequisite: PSY 111, or permission of the instructor. 3 credits.

**PSY 270. Forensic Psychology.** This course will focus on three critical areas that fall under the umbrella of forensic psychology. First, students will be introduced to the area of legal psychology, including applied empirical research on issues important to the legal system such as eyewitness accuracy, police selection, jury decision making, and legal assumptions about human behavior relevant to the rights of defendants, victims, children, and consumers of mental health services. Second, the area of psychological jurisprudence will be explored by studying efforts to develop a philosophy of law and justice based on psychological values. Third, students will be introduced to the concepts generally thought of as forensic psychology, such as criminal profiling, insanity defense, competence to stand trial, and child custody decisions. Prerequisite: PSY 111, or permission of the instructor. 3 credits. [This course is cross-listed with SOC 270]

**PSY 280. Introduction to Neuropsychology.** This course serves as an introduction to the content areas and methodology of neuropsychology, the study of the relationships between brain function and behavior. Topics include basic communication in the nervous system, organization and function of sensory and motor systems, hemispheric specialization, localization of function, brain injury and plasticity, and issues associated with neuropsychological assessment. Prerequisite: PSY 111, or permission of the instructor. 3 credits.

**PSY 285. Introduction to Psychopharmacology.** This course surveys the most commonly used substances to treat mental disorders, such as antianxiety, antidepressant, antipsychotic, mood-stabilizer, psychostimulant, and cognitive enhancer medications. The course also discusses the brain and its most common neurotransmitters, how transmitting neurons send and receive electrochemical information, the pharmacokinetics (metabolism and elimination) and pharmacodynamics (absorption, distribution, and effects) of each drug as well as the action sites, side effects, and mechanisms of each drug. Prerequisite: PSY 111, or permission of the instructor. 3 credits.



**PSY 310. Advanced Research Design.** This seminar, for junior- and senior-level undergraduates, is designed to prepare students for the capstone experience(s) of PSY 400 and/or PSY 410. The course focuses on developing students' abilities to apply their knowledge of psychological theory and experimental methodology towards the critical appraisal of existing empirical research within psychology. The course will culminate in students utilizing these evaluative skills in the context of proposing a novel experiment on a psychological topic of their choosing. Prerequisites: PSY 111, 112, 211, and 212; or permission of the instructor. 2 credits.

**PSY 324. Psychology of Child Development.** This course provides a broad foundation for understanding child development through an integration of practical, theoretical, and research orientations. Attention is given to both cultural and biological determinants of social, cognitive, physical, and emotional development, focusing on individual differences as well as group similarities. Prerequisites: PSY 111, 112, 211, and 212; or permission of the instructor. 3 credits.

**PSY 325. Child Development Laboratory.** The course will provide students with experience planning (including IRB approval), observing, measuring, and analyzing child behavior using the methods employed by developmental researchers. This is intended to supplement the theory and research background they receive in PSY 324. Prerequisites: PSY 111, 112, 211, and 212; or permission of the instructor. Students must also have either completed or be currently enrolled in PSY 324. 1 credit.

**PSY 332. Psychological Testing and Assessment.** An introduction to the principles of psychological measurement, methods of test design and construction, and applications and interpretations of existing psychological tests. Prerequisites: PSY 111, 112, 211, and 212; or permission of the instructor. 3 credits.

**PSY 333. Psychological Testing and Assessment Laboratory.** Students will be given the opportunity to experience how psychological tests are designed and evaluated. Each student will conduct a literature review on their selected topics, and then design, construct, distribute, and evaluate the validity/reliability of a psychological test instrument consistent with a research theme that will change every year. Prerequisites: PSY 111, 112, 211, and 212; or permission of the instructor. Students must also have either completed or be currently enrolled in PSY 332. 1 credit.

**PSY 346. Social Psychology.** A study of the inter- and intra-personal relationships between individuals and groups, with emphasis on theories and research studies. The topics covered may include attitude development and change, conformity, persuasion, person perception, attribution, attraction and group processes. Prerequisites: PSY 111, 112, 211, and 212; or permission of the instructor. 3 credits.

**PSY 347. Social Psychology Laboratory.** This course is intended to provide students with hands-on experience in the types of survey design, observational research, and lab-based experimentation consistent with group behavior, interpersonal relationships, and the interaction between social issues and popular culture. The course culminates in the presentation of data from students' original research within social psychology. Prerequisites: PSY 111, 112, 211, and 212; or permission of the instructor. Students must also have either completed or be currently enrolled in PSY 346. 1 credit.

**PSY 363. Cognitive Science.** This course explores the human mind by integrating philosophical, psychological, and biological perspectives on the nature of thought processes. Specific topics discussed in this framework include attention, perception, consciousness, memory, language, reasoning, intelligence, and thought-related dysfunctions. Prerequisites: PSY 111, 112, 211, and 212; or permission of the instructor. 3 credits.

**PSY 364. Cognitive Science Laboratory.** This is an advanced, hands-on seminar in cognitive science, which will allow students to explore a preferred interest in human thinking via laboratory research. Students will review the literature on their chosen topic, design an experiment addressing this issue, and then collect and analyze the data from their experiment. The course culminates with an oral and written presentation of their research. Prerequisites: PSY 111, 112, 211, and 212; students must also have either completed or be currently enrolled in PSY 363. 1 credit.

**PSY 378. Behavioral Neuroscience.** A study of the biological basis (substrates) of behavioral processes. The course focuses on the physiology of reflexes, sensation and perception, learning and memory, sleep, ingestive behaviors, emotion and psychopathology. Prerequisites: PSY 111, 112, 211, and 212; or permission of the instructor. 3 credits. [This course is cross-listed with PBI 378]

**PSY 379. Behavioral Neuroscience Lab.** Students will be introduced to methods used in the study of the nervous system and its influence on behavior. Lab work will include collecting, analyzing, and reporting data from physiological studies, as well as sheep brain dissection. In addition, students must complete an APA style proposal for an individual research project. Prerequisites: PSY 111, 112, 211, and 212; or permission of the instructor. 1 credit. [This course is cross-listed with PBI 379]

**PSY 400. Internship.** This course focuses on practical and professional work experience related to the student's work or research interests or graduate school plans. Internships are limited to off-campus sites only. Students should not take more than six credits per semester. Graded pass/fail. This course may be repeated for credit as topic changes. Prerequisites: PSY 310, and junior or senior standing; completion of departmental form; approval of internship site by student's adviser prior to registration. 1-12 credits.

**PSY 410. Independent Laboratory Research.** This advanced seminar allows students to explore their own research-based interests in psychology via the completion of a laboratory experiment on a psychological topic of their choosing. Students will review the literature on their topic in an integrative manner, formulate a novel experiment that addresses some aspect(s) of their chosen discipline, collect and analyze data for their experiment, and then present their findings in the form of an oral presentation and a complete APA-style research manuscript. Students may enroll in a maximum of 3 credit hours per independent laboratory research in any one semester. A maximum of 6 credit hours in independent laboratory research may be used toward the graduation requirements. This course may be repeated for credit as topic changes. Prerequisites: PSY 310 and junior or senior standing, and a meeting with the course instructor prior to the start of the semester to begin discussing possible research topics. 3 credits.

**PSY 443. History and Theory.** A study of the history of psychology, including philosophical precursors to psychology, early and modern schools of thought within psychology, important trends, and famous psychologists. Fulfills general education requirement: Writing Process. Prerequisite(s): Junior standing, plus all of PSY 111, 112, 211, 212. 3 credits.

### *Courses in Religion*

**REL 110. Introduction to Religion.** An exploration of the many dimensions of religion as a central human experience: self and meaning, religious expression, religious knowledge, religion in its cultural context, and religion and the natural order. Fulfills general education requirement: Liberal Studies Area 6 (Religion and Philosophy). 3 credits.

**REL 120. Religion in America.** A study of the origin and development of religious expression in America. Special emphasis will be given to issues of religious diversity. Fulfills general education requirement: Social Diversity Studies. 3 credits.

**REL 140. Encountering World Religions.** This course examines the beliefs and practices of some of the world's major religious traditions and significant religious movements, focusing predominantly on non-Christian or non-European traditions. The course will be oriented topically (ritual, theology, etc.), geographically (India, the Middle East, etc.), or thematically (religion in the modern world, religious encounters in history, etc.) Fulfills general education requirement: Foreign Studies. 3 credits.

**REL 200. Comparative Scripture.** This class aims to introduce students to the study of scripture as a key aspect of religiosity. It will be cross-cultural in nature and familiarize students with a variety of religious texts from several religious traditions. The study of textual religious expression will come from reading both primary sources and theoretical works on the study of scripture. Fulfills general education requirement: Foreign Studies. 3 credits.

**REL 202. Jewish and Christian Scripture.** A study of the Hebrew Bible and New Testament and related literature, including its historical and social context. Fulfills general education requirement: Liberal Studies Area 6 (Religion and Philosophy). 3 credits.

**REL 204. Hindu Scripture.** A study of the variety of religious literature produced over the last 4000 years that has shaped Hindu thought. Central to the aim of the course is engagement with a variety of types of scripture, including poetic praise of the divine, ritual manuals, epic narrative, and contemporary devotional songs. Fulfills general education requirement: Foreign Studies. 3 credits.

**REL 230. Philosophy of Religion.** A study of the issues raised for philosophy by contemporary religious thought. The course examines such topics as faith and reason; faith and culture; and interpretations of revelation, symbolism and religious language. Fulfills general education requirement: Writing Process. Liberal Studies Area 6 (Religion and Philosophy). 3 credits. [This course is cross-listed with PHL 230]

**REL 250. Christianity.** An examination of the history of Christianity and the development of Christian thought through the reading and discussion of primary works in Christian theology and philosophy. Fulfills general education requirement: Disciplinary Perspectives. 3 credits.

**REL 251. Judaism.** A survey of the development of Judaism and its contemporary teachings and practices. Fulfills general education requirement: Liberal Studies Area 6 (Religion and Philosophy). 3 credits.

**REL 252. Hinduism.** An examination of the major religious tradition of India, through its historical development from the oldest culture extant on the subcontinent to the modern world. Students will engage a variety of materials, texts, archaeology, images, and anthropological descriptions, in order to gain a broad understanding of the tradition. Fulfills general education requirement: Foreign Studies. 3 credits.

**REL 253. Buddhism.** A study of the development of Buddhism, including its teaching, practice and influence as one of the great missionary religions. Fulfills general education requirement: Foreign Studies. 3 credits.

**REL 255. Islam.** This course will introduce students to the historical origins and development of Islam. Fulfills general education requirement: Foreign Studies. 3 credits.

**REL 280. Method and Theory in Religion.** The aim of the class is to familiarize students with the methods and theories which are constitutive of the academic discipline of Religious Studies and to attune them to the historical context of the development of the study of religion as an academic discipline. Fulfills general education requirement: Writing Process. 3 credits.

**REL 311. Key Issues in Religion.** The course focuses on the issues surrounding one central topic in the study of religion. Topics include God, Postmodern Philosophy and Theology, Existentialism and Religion, Religion and Violence, Religious Fundamentalism, The Problem of Evil. Fulfills general education requirement: Writing Process. Prerequisite: One prior course in religion. 3 credits.

**REL 313. The Search for Jesus.** This course will examine ancient texts, contemporary commentaries, historical reconstructions, and artistic and literary depictions in its search for Jesus. Fulfills general education requirement: Writing Process. Disciplinary Perspectives. 3 credits.

**REL 314. Death, Dying, and Beyond.** This course will engage the different religious answers to the fact that humans are mortal. Its aim is to introduce students to the variety of human reactions to the finitude of our corporeal existence and challenge them to engage the variety of responses from a variety of disciplinary perspectives. Fulfills general education requirement: Disciplinary Perspectives. 3 credits.

**REL 340. One Nation Under God?** This course explores the relationship between religion and politics in the United States. It will include an examination of the role religion played in the founding of our nation's democracy, the important separation between church and state that has been achieved over the course of our nation's history, and the ascendancy of the religious right in recent electoral politics. Fulfills general education requirement: Liberal Studies Area 1 (History). 3 credits. [This course is cross-listed with AMS 340]

**REL 499. Senior Seminar.** Students will complete a major paper, integrating their research, writing, and analytical skills. Fulfills general education requirement: Writing Process. Prerequisite: Junior or Senior standing or by permission. 3 credits. [This course is cross-listed with PHL 499]

#### *Courses in Sanskrit*

**SKT 101. Elementary Sanskrit I.** These courses introduce the student to the Sanskrit language, including the devanagari script, pronunciation, basic grammar, and vocabulary. They also offer insights into Indian culture. Fulfills general education requirement: Foreign Language. 3 credits.

**SKT 102. Elementary Sanskrit II.** Second semester of an introduction to the Sanskrit language, including the devanagari script, pronunciation, basic grammar, and vocabulary. They also offer insights into Indian culture. Fulfills general education requirement: Foreign Language. 3 credits.

#### *Courses in Science*

**SCI 100. Introduction to Science.** The study of scientific principles and experiments applicable to a person's everyday experiences. Student projects are selected from the areas of biology, chemistry, and physics. The course is open to all students and is appropriate for those intending to teach elementary school. Laboratory experience included. Fulfills general education requirement: Liberal Studies Area 3 (Natural Science). 4 credits.

#### *Courses in Secondary Education*

**SED 110. Foundations of Education.** A study of the legal, social, historical and philosophical foundations of American education correlated with a survey of the principles and theories of influential educators. Includes required weekly field practicum (two hours per week minimum). Limited to any student desiring teacher certification in any 7-12 secondary or K-12 content area with an approved PDE certification program or permission of instructor. This course is not open to early childhood or music education majors. 3 credits.

**SED 280. Field Practicum in the Secondary School.** Supervised field experiences in appropriate school settings. Designed to offer practical experiences for prospective secondary teachers. May be repeated. Prerequisite: Permission 0 credits.

**SED 361. Teaching of Art in Schools.** This course will offer comprehensive preparation for teaching art in secondary schools through discussing, reading, writing, and completing art projects through different mediums. As part of this course, students will establish and practice appropriate classroom management strategies; develop and implement appropriate studio organization and assessment strategies; explore and utilize materials, techniques and methods of studio instruction for a variety of populations; read, write and discuss current issues in the field of education, including meeting the needs of students with disabilities; explore and utilize materials, techniques and methods of classroom instruction for a variety of populations including those with disabilities; evaluate student work by creating their own rubrics to assess learning; and use technology effectively as an instructional tool. Prerequisites: Art/Art History Major or permission. 3 credits.

**SED 362. Teaching of the Sciences in the Secondary Schools.** This course will offer comprehensive preparation for teaching science in secondary schools through discussing, reading, writing, and completing projects. As part of this course, students will design lesson plans that will include teaching the literacy of science for all students including those with disabilities; explore and utilize materials, techniques and methods of lab instruction for a variety of populations including those with disabilities; create and teach a lesson for a target audience; synthesize, reconfigure and connect what they have learned within the areas of scientific literacy, writing and education; evaluate student work by creating their own rubrics to assess learning in units and assignments for all students including those with disabilities; use technology effectively as an instructional tool; establish and practice appropriate classroom management strategies. Prerequisite: Biology, Chemistry, or Physics major or permission. 3 credits.

**SED 363. Teaching of Social Sciences in the Secondary Schools.** This course will offer comprehensive preparation for teaching social studies in secondary schools through discussing, reading, writing, and completing projects. As part of this course, students will establish and practice appropriate classroom management strategies; design lessons/units of study that meaningfully integrate different and varied aspects of social studies; develop appropriate assessment strategies for all students including those with disabilities; explore and utilize materials, techniques and methods of classroom instruction for a variety of populations including those with disabilities; synthesize, reconfigure and connect what they have learned within the areas of social studies literacy, writing and education; evaluate student work by creating their own rubrics to assess learning; use technology effectively as an instructional tool. Prerequisite: Social Studies major or permission 3 credits.

**SED 364. Teaching of English in the Secondary Schools.** This course will offer comprehensive preparation for teaching English in secondary schools through discussing, reading, writing, and completing projects. As part of this course, students will synthesize, reconfigure and connect what they have learned within the areas of literature, writing and education; use technology effectively as an instructional tool; establish and practice appropriate classroom management strategies for all students including those with disabilities; design lessons/units of study that meaningfully integrate different and varied aspects of English for all students including those with disabilities; develop appropriate assessment strategies for all students including those with disabilities; explore and utilize materials, techniques and methods of classroom instruction for a variety of populations. Prerequisite: English major or permission. 3 credits.

**SED 365. Teaching of Second Languages in Schools.** This course will offer comprehensive preparation for teaching foreign language in secondary schools through discussing, reading, writing, and completing projects. As a part of this course, students will synthesize, reconfigure and connect what they have learned within the areas of language acquisition, teaching, writing and education to formulate a mission statement for their own teaching practice; evaluate student work by creating their own rubrics to assess learning in foreign language acquisition, units of study and assignments; use technology effectively as an instructional tool; establish and practice appropriate classroom management strategies for all students including those with disabilities; design lessons/units of study that meaningfully integrate different and varied aspects of foreign language acquisition for all students including those with disabilities; develop appropriate assessment strategies for all students including those with disabilities; explore and utilize materials, techniques and methods of classroom instruction for a variety of populations. Prerequisites: Foreign Language major or permission. 3 credits.

**SED 366. Teaching of Mathematics in the Secondary Schools.** This course will offer comprehensive preparation for teaching mathematics in secondary schools through discussing, reading, writing, and completing projects. Students enrolled in this course will explore and utilize materials, techniques and methods of instruction for a variety of populations; synthesize, reconfigure and connect what they have learned within the areas of mathematical literacy, writing, and education; evaluate student work by creating their own rubrics to assess learning in units and assignments for all students including those with disabilities; use technology effectively as an instructional tool; establish and practice appropriate classroom management strategies for all students including those with disabilities; design lessons/units of study that meaningfully integrate different and varied aspects of mathematics; explore and utilize materials, techniques and methods of classroom instruction for a variety of populations. Prerequisites: Mathematics major or permission. 3 credits.

**SED 430. Practicum and Methods I.** A study of the basic principles and procedures for middle school and secondary classroom management and instruction. Prerequisite: SED 110; secondary teacher certification candidate; junior status; approval of instructor; must be taken prior to SED 431 or 440. 3 credits.

**SED 431. Practicum and Methods II.** A continuation of the basic principles and procedures for middle school and secondary school classroom management and instruction. Prerequisites: SED 110, 430; secondary teacher certification candidate; junior or senior status; approval of the instructor; must be taken prior to SED 440. 3 credits.

**SED 440. Student Teaching.** Students spend an entire semester in an area school under the supervision of a cooperating teacher. Prerequisites: A cumulative grade point average of 2.8 and admission to teacher certification candidacy are required. (See Education Department III 1-7.) SED 110, 430, 431; open to seniors or students seeking certification only. 12 credits.

#### *Courses in Social Diversity Studies*

**SDS 330. Diversity in the Workforce.** An investigation of reasons why questions of diversity affect organizations including demographic changes, types of diversity and relevant federal legislation. Considers differences in race, sex, gender, religion, sexual orientation, ethnic background, age, physical ability/disability and geography. Fulfills general education requirement: Social Diversity Studies. 3 credits.

#### *Courses in Sociology*

**SOC 110. Introduction to Sociology.** An introduction to the sociological perspective with a focus on how individual behavior is shaped by the social context. The nature and characteristics of human societies and social life are examined from a perspective known as the "sociological imagination". Topics range from the influence of culture on human behavior, the development of the self, group dynamics, deviance, population, and social inequality. Fulfills general education requirement: Liberal Studies Area 2 (Social Science). 3 credits.

- SOC 120. Introduction to Anthropology.** Introduction to both physical and cultural anthropology including human evolution, human variation, and cross-cultural analysis and comparison. Fulfills general education requirement: Liberal Studies Area 2 (Social Science). 3 credits.
- SOC 210. Social Problems.** Contemporary social problems are examined from a constructionist perspective. Topics selected for study vary according to societal trends, but typically include an examination of social change, poverty, globalization, environmental degradation, deviance, and health. Fulfills general education requirement: Liberal Studies Area 2 (Social Science). Prerequisite: SOC 110. 3 credits.
- SOC 220. Forensic Evidence.** This course involves the application of scientific methods to solving crimes. The course will explore the many ways in which an offender leaves evidence behind at a crime scene and carries evidence away from that crime scene. A range of topics will be covered including, but not limited to: ballistics, DNA, fingerprints, tire prints, odontology and entomology. Prerequisite: SOC 110. 3 credits.
- SOC 224. Native American Experience.** A review of the development of Native American society, culture, politics and economy from prehistory to the present with special emphasis on the relationships between Native Americans and other immigrants to North America. Fulfills general education requirement: Social Diversity Studies. 3 credits.
- SOC 226. Women and Gender Issues.** An examination of women's contributions to the world, their roles in social institutions, and issues arising from their uniqueness and social situations. Topics will include images of women and their writings; biology and health; issues of sexuality and gender identity; and women's roles in the family, religion, education, and in the worlds of work and politics. Fulfills general education requirement: Social Diversity Studies. Prerequisite: SOC 110. 3 credits.
- SOC 230. Sociology of Marriage and the Family.** An overview of family focusing on family structure and interaction. Diverse topics range from sexuality and love, mate selection and dating, parenting, dysfunctional families, and divorce. A historical and cross-cultural approach is employed in addition to a sociological approach. Fulfills general education requirement: Liberal Studies Area 2 (Social Science). Prerequisite: SOC 110. 3 credits.
- SOC 240. Diversity and Intercultural Communication.** The major objective of this course is to help students become aware of the degree to which behavior (including one's own) is culturally determined. As we continue to move toward a global society with increasingly frequent intercultural contacts, we need more than simple factual knowledge about cultural differences; we need a framework for understanding inter-cultural communication and cross-cultural human relations. Through lecture, discussion, simulations, case- studies, role-plays and games, students will learn the inter-cultural communication framework and the skills necessary to make them feel comfortable and communicate effectively with people of any culture and in any situation involving a group of diverse backgrounds. Fulfills general education requirement: Social Diversity Studies. Prerequisite: SOC 110. 3 credits.
- SOC 245. Crime and Criminals.** An examination of different types of crime including a broad range of violent crimes and property crimes. Profiling and criminal typologies will be explored. Specific crimes such as arson, kidnapping, stalking, and homicide will be studied. Case studies of prototypical offenders will be included. Prerequisite: SOC 110. 3 credits.
- SOC 261. Perspectives on Aging.** Introduction to the study of aging from a multidisciplinary perspective. Topics include the biology of aging, demographic trends in aging, and aging impacts on social institutions and society. Policies on aging are reviewed. Fulfills general education requirement: Liberal Studies Area 2 (Social Science). Prerequisite: SOC 110. 3 credits.
- SOC 262. Race, Minorities and Discrimination.** An examination of the patterns of structured inequality in American society, including a variety of minority, racial, and ethnic groups. Fulfills general education requirement: Social Diversity Studies. Prerequisite: SOC 110. 3 credits.
- SOC 270. Forensic Psychology.** This course will focus on three critical areas that fall under the umbrella of forensic psychology. First, students will be introduced to the area of legal psychology, including applied empirical research on issues important to the legal system such as eyewitness accuracy, police selection, jury decision making, and legal assumptions about human behavior relevant to the rights of defendants, victims, children, and consumers of mental health services. Second, the area of psychological jurisprudence will be explored by studying efforts to develop a philosophy of law and justice based on psychological values. Third, students will be introduced to the concepts generally thought of as forensic psychology, such as criminal profiling, insanity defense, competence to stand trial, and child custody decisions. Prerequisites: SOC 110 or PSY 111. 3 credits. [This course is cross-listed with PSY 270]
- SOC 271. Child Abuse.** The study and analysis of child abuse in its various expressions with additional focus on physical and sexual abuse. Emphasis will be on models and theories of causation, dynamics, treatment and research. Prerequisite: SOC 110. 3 credits.
- SOC 272. Substance Abuse.** An examination of the problems associated with substance abuse including a study of the prevalent myths concerning substance abuse, and exploration of the causes of substance abuse and an exploration of how it affects the individual, the family and society as a whole. In addition, the course will examine current methods of intervention and treatment. Prerequisite: SOC 110. 3 credits.
- SOC 278. Juvenile Justice.** An examination of the causes and effects of juvenile delinquency, the juvenile justice system and treatment programs for the juvenile offender. Prerequisite: SOC 110. 3 credits.

**SOC 280. Sexuality and Society.** Study of human sexuality from psychosocial and cultural perspectives. The course will include an examination of such topics as developmental sexuality, gender roles, sexual communication, sexual orientation, coercive sex, sexually transmitted diseases, HIV, and religious and ethical perspectives on sexuality. Prerequisite: SOC 110. 3 credits.

**SOC 310. Statistical Research Tools for the Social Sciences.** This laboratory course builds skills in basic data management, statistical analysis, and interpretation of statistical information. The course reviews how to interpret both descriptive and inferential statistical analysis. The skills acquired in this lab are employed in research methods to aide students in the design, analysis, and presentation of their research project. Prerequisite: SOC 110. 1 credit.

**SOC 311. Research Methods in Sociology.** Experiential-based course covering fundamental concepts and problems in social science research. Topics include ethics or research on human behavior, design, measurement, sampling, and interviewing and questionnaire construction. There is an emphasis on four research methods: available data, survey research, experiments, and field research. Fulfills general education requirement: Writing Process. Prerequisite: SOC 110, plus 9 credits of 200-level or above sociology or permission. 3 credits.

**SOC 321. Social Theory.** This course covers a critical examination of selected classical and contemporary theorists, including Marx, Durkheim, Weber, Parsons, Foucault, Bourdieu and Giddens. Classical, modern, post-modern and globalization theories will be covered. A meta-analytical approach will be used, looking at the social construction of theory. Prerequisite: SOC 110 and 6 credits in sociology at the 200-level or above, or permission of the instructor. 3 credits.

**SOC 324. Medical Sociology.** An examination of the societal bases of health, illness and health care. The course will include an examination of the three components of medicine: the patient, the medical professional and the health care organization. Specific topics will include: the role of the patient; doctor-patient relationships; the socialization of medical professionals; the hospital as a complex organization, cross-cultural comparisons of health care and current topics of concern such as the AIDS epidemic, new technologies and social response to the terminally ill patient. Fulfills general education requirement: Writing Process. Prerequisites: SOC 110 plus 6 credits of sociology at the 200-level or above, or permission of the instructor. 3 credits.

**SOC 325. Urban Sociology.** The city provides a setting for cultural events, commerce, innovative services, and the arts. The city is also associated with crime, poverty, and environmental problems. Throughout the course a variety of approaches to urban life and change will be considered by combining theories of the urban world, empirical study, and urban field experience. Topics include city growth and decline, urban life-styles, and the impact of city life on individuals, families, neighborhoods, and government. Prerequisite: SOC 110, plus 9 credits of 200-level or above of Sociology, or permission. 3 credits.

**SOC 331. Criminology.** An examination of the causes of crime. The question of whether or not victimless crimes such as pornography, prostitution and drug use should be considered crimes is explored. This is primarily a theory course for criminal justice majors. Fulfills general education requirement: Writing Process. Prerequisite: SOC 110 and SOC 245, plus 6 credits of 200 level or above of Sociology, and junior standing, or permission. 3 credits.

**SOC 333. Criminal Justice.** A sociological, historical, and philosophical examination of punishment and the criminal justice system. Rights of the accused, victimology, prisons, and the death penalty are studied. Prerequisite: SOC 110, 245, plus 6 credits of 200 level or above of sociology, or permission. 3 credits.

**SOC 335. Probation & Parole -Offenders in the Community.** This course will provide students with a brief overview of the criminological theories and their applications by those who are employed within the probation and parole system. Most importantly, the course explores how offenders live in the community, who they are and what is done within the probation and parole system to protect society. Prerequisite: SOC 110 and 245. 3 credits.

**SOC 340. Group Structure and Dynamics.** An overview of the theory and research on small group organization and process including issues related to leadership, effective communication in groups, conformity and influence. Application of basic principles to practical situations. Exercises designed to improve group leadership and participation skills. Prerequisite: SOC 110, junior standing or permission. 3 credits.

**SOC 370. Adoption.** This course will focus on populations involved in adoption, including birth parents, adoptees, foster and adoptive families and agencies, in both domestic and transnational adoptions. Special consideration will be given to recent policies and vehicles that have been put into place to facilitate the permanency placement of children. A consideration of ethics in adoption will be a central theme of the course. An examination of cultural, economic and policy factors in countries involved in transnational adoption will be included. The health (both physical and psychological) and cultural issues of adoptees and services that address these will be addressed. Prerequisites: SOC 110 and 6 credits in sociology at the 200 level or above, or permission of the instructor. 3 credits.

**SOC 400. Internship.** Field experience for sociology or criminal justice majors. This course may be repeated for credit as topic changes. Prerequisites for criminal justice majors: SOC 245, 331, and 333. Prerequisites for sociology majors: SOC 110, SOC 311, and 321 or 331. Seniors only or permission. 1-12 credits.

**SOC 499. Senior Seminar.** A critical analysis of selected themes and issues in contemporary sociology. Topics may vary. This course is conducted as a seminar requiring extensive student participation. Fulfills general education requirement: Writing Process. Prerequisite: SOC 110 plus SOC 311, 321, or 331 and 9 additional credits in sociology. This course is for senior Sociology majors and criminal justice majors only (or permission). 3 credits.

### *Courses in Spanish*

**SPA 101. Elementary Spanish I.** Introductory course in Spanish. Aimed at developing basic communicative proficiency in Spanish. Also offers insights into Hispanic cultures. Fulfills general education requirement: Foreign Language. 3 credits.

**SPA 102. Elementary Spanish II.** Second half of the introductory course. Fulfills general education requirement: Foreign Language. Prerequisite: SPA 101 or equivalent. 3 credits.

**SPA 201. Intermediate Spanish I.** Begins with a review of material typically covered in a first-year Spanish course followed by further development of proficiency in all four language skills; listening, speaking, reading and writing. Also aims to enhance students' knowledge of the cultures of Hispanic peoples. Fulfills general education requirement: Foreign Language. Prerequisite: SPA 102 or equivalent. 3 credits.

**SPA 202. Intermediate Spanish II.** Second half of the intermediate course. Fulfills general education requirement: Foreign Language. Prerequisite: SPA 201 or equivalent. 3 credits.

**SPA 300. Advanced Conversation.** Intensive practice in spoken Spanish. Discussions on a wide range of topics related to Spanish and Latin American life and contemporary society. Prerequisite: SPA 202 or equivalent. 3 credits.

**SPA 310. Advanced Grammar and Composition.** Discussion of more complex grammatical structures. Intensive practice in written Spanish. Development of advanced writing skills through composition assignments based on contemporary issues. Fulfills general education requirement: Writing Process. Prerequisite: SPA 202 or equivalent. 3 credits.

**SPA 320. Business Spanish.** A study of the language of business and business practices. Prerequisite: SPA 202 or equivalent. 3 credits.

**SPA 340. The Sounds of Spanish.** A course in phonetics and phonology designed to help students acquire standard pronunciation and intonation. 3 credits.

**SPA 350. Spanish Culture and Civilization.** An overview of Spanish culture, history and geography, with special focus on current issues. Prerequisite: SPA 202 or equivalent. 3 credits.

**SPA 360. Latin-American Cultures and Civilizations.** An overview of Latin American cultures, history, and geography, with special focus on current issues. Fulfills general education requirement: Foreign Studies. Prerequisite: SPA 202 or equivalent. 3 credits.

**SPA 370. Techniques of Translation and Interpretation.** Studies methods of translation and interpretation. Oral and written texts will be used to work both from Spanish to English and English to Spanish. Prerequisite: SPA 202 or equivalent. 3 credits.

**SPA 410. Spanish Literature of the Middle Ages and Renaissance.** A study of the outstanding works of the period. Fulfills general education requirement: Writing Process. Liberal Studies Area 5 (Literature and Fine Art). Prerequisite: SPA 202 or equivalent. 3 credits.

**SPA 420. Spanish Literature of the Golden Age.** A study of the major works of the period. Fulfills general education requirement: Writing Process. Liberal Studies Area 5 (Literature and Fine Art). Prerequisite: SPA 202 or equivalent. 3 credits.

**SPA 430. Spanish Literature of the 18th and 19th Centuries.** Readings from the Enlightenment in Spain and an examination of the major works of romanticism and realism. Fulfills general education requirement: Writing Process. Liberal Studies Area 5 (Literature and Fine Art). Prerequisite: SPA 202 or equivalent. From Subject SPA; 3 credits.

**SPA 440. Spanish Literature of the 20th and 21st Centuries.** A study of the literary movement of the century, starting with the Generation '98 and modernism. Fulfills general education requirement: Writing Process. Liberal Studies Area 5 (Literature and Fine Art). Prerequisite: SPA 202 or equivalent. 3 credits.

**SPA 450. Latin-American Literature of the 20th and 21st Centuries.** A study of significant writers of each century, with emphasis on recent developments. Fulfills general education requirement: Writing Process. Liberal Studies Area 5 (Literature and Fine Art). Prerequisite: SPA 202 or equivalent. 3 credits.

**SPA 460. The Age of Discovery.** An examination of native cultures before 1492, the arrival of Spanish explorers and their effect on these native populations. Fulfills general education requirement: Writing Process. Foreign Studies. Prerequisite: SPA 202 or equivalent. 3 credits.

### *Courses in Special Education*

**SPE 250. Cognitive Development of Diverse Learners.** This course is designed to introduce all categories of disability. Specific attention will be given to the potential cognitive, physical, social, behavioral, and language differences in children with disabilities. Delivery approach will include, but not be limited to: lecture, case study discussions, and student presentations. Fulfills general education requirement: Writing Process. 3 credits.

**SPE 255. Special Education Processes and Procedures.** This course will begin with a historical overview of the field of special education, including key legislation and litigation that drives current practice. Assessment tools for diagnosing disability will be introduced, as well as assessment tools for documenting student progress. In addition, collaboration and communication skills essential for working as a part of the special education team will be practiced and further developed. Delivery approach will include, but not be limited to: lecture, field experiences, and hands-on experience with various assessments. 3 credits.

**SPE 258. Effective Instructional and Behavioral Strategies for Students with Disabilities.** The focus of this course content will be on (a) behavioral principles and their application in the classroom, (b) literacy development and literacy interventions for students with disabilities, and (c) evidence-based instructional strategies in other content areas, such as mathematics, social studies, science, and the creative arts. Delivery approach will include, but not be limited to: lecture, case study applications, field experiences, hands-on experience with various literacy programs, and student presentations. Prerequisite: Restricted to Music majors and transfer students. 3 credits.

**SPE 260. Evidenced Based Effective Instruction in Educating Students Identified with a High Incidence Disability.** This course is designed to provide in-depth study of the high incidence disabilities (i.e., specific learning disabilities, speech and language impairments, mental retardation, emotional disturbance, and other health impairments). Specific attention will be given to the etiologies of various diagnoses, their prevalence, and their characteristics. Students will be prepared to offer special education using a least restrictive environment-school wide delivery model. Delivery approach will include, but not be limited to: lecture, case study discussions, research papers, and text analysis. Prerequisites: EDU 140, permission of the instructor. 3 credits.

**SPE 263. Intensive Math and Content Area Intervention Approaches.** This course is designed to provide in-depth study of the high incidence disabilities (i.e., specific learning disabilities, speech and language impairments, mental retardation, emotional disturbance, and other health impairments). Specific attention will be given to the etiologies of various diagnoses, their prevalence, and their characteristics. Students will be prepared to offer special education using a least restrictive environment-school wide delivery model. Delivery approach will include, but not be limited to: lecture, case study discussions, research papers, and text analysis. Prerequisites: EDU 140, permission of the instructor. 3 credits.

**SPE 266. Evidenced Based Effective Instruction in Intervention Approaches Educating Students Identified With a Low Incidence Disability.** This course is designed to provide in-depth study of the low incidence disabilities (i.e., autism, developmental delay, multiple disabilities, deaf-blindness, visual impairments, hearing impairments, orthopedic impairments, traumatic brain injury). Specific attention will be given to the etiologies and medical aspects of these diagnoses, their prevalence, and their characteristics. Instructional planning and assessment of student progress for these populations will be emphasized. Delivery approach will include, but not be limited to: lecture, case study discussions, research papers, and text analysis. Prerequisites: EDU 140, permission of the instructor. 3 credits.

**SPE 269. Positive Behavioral Supports - Evidence Based Behavioral Intervention and Prevention.** This course will begin with study of behavior theories and researchers, as well as principles of applied behavior analysis. Students will learn how to use functional assessment of student behavior to hypothesize the functions of behavior and to plan appropriate and positive interventions. Students will learn how to measure and record behavioral data. Focus will be on prevention of problem behavior as well as how to manage challenging behaviors, both from a classroom and a school wide perspective. Delivery approach will include, but not be limited to: lecture, case study applications, field experiences, lesson plans, and research papers. 3 credits.

**SPE 360. Intensive Language Arts Intervention Approaches.** The focus of this course content will be on intensive language arts interventions for those students with disabilities who need systematic, direct instruction in order to become competent readers and writers. A variety of literacy programs will be examined, as well as language arts strategies and approaches which have been found effective for struggling readers. The requirements for a writing process course will be fulfilled through a case study paper and a research paper. Delivery approach will include, but not be limited to: case study papers, research papers, student presentations, simulations, field experiences, hands-on experience with various literacy programs, and lesson plans. Prerequisites: EDU 140, permission of the instructor. 3 credits.

**SPE 363. Assessment in Special Education.** This course will involve an in-depth examination of assessment, to include: universal screenings, diagnostic assessments to diagnose disabilities, authentic assessments, and benchmark, formative, and summative tools. Students will practice administering and scoring various assessments. They will analyze student progress data and use that data for writing IEP goals and for instructional planning. Delivery approach will include, but not be limited to: text analysis, field experiences, case study analyses, and hands-on experience with various assessments. Prerequisites: EDU 140, permission of the instructor. 3 credits.

**SPE 366. Collaboration and Communication - Advocacy, Leadership, and Ethical Practice.** This course will begin with an examination of the professional and ethical standards expected of both general and special educators. Review of special education legislation and litigation will be conducted as it relates to safeguarding student health and welfare and in order that special education certifiers will have the knowledge to effectively advocate on behalf of their students with disabilities. In addition, collaboration and communication skills will be practiced and further developed through co-teaching opportunities and participation on special education teams. Delivery approach will include, but not be limited to: field experiences, class discussions, simulations, and reflective writing. Prerequisites: EDU 140, permission of the instructor. 3 credits.



## GRADUATE COURSE DESCRIPTIONS

### *Master of Business Administration Courses*

**MBA 801. Introduction to Healthcare Management.** The course examines the history of medicine; healthcare delivery systems such as acute hospital care, chronic care, outpatient systems, and long term care; healthcare professions and medical education; US and World healthcare systems; health insurance, healthcare financing and payers; employee based coverage compared to government coverage; public health; and healthcare technology and innovation and its cost. The course provides an introduction to management across functions in a healthcare organization. 3 credits.

**MBA 802. Ethical, Legal, and Regulatory Issues in Healthcare.** This course introduces students to the legal, regulatory, and ethical issues they are likely to face in managing a healthcare organization. With the increasing intersection between healthcare delivery and law, healthcare managers will encounter a wide range of legal and regulatory issues, including patients' rights, antitrust, institutional liability, privacy, security and reimbursement. It is thus important for students to be familiar with basic legal principles affecting how healthcare institutions operate, how legal rules and doctrine are formulated, and how to interact effectively with attorneys. Prerequisite: MBA 801, or by permission. 3 credits.

**MBA 803. The Economics and Financing of Healthcare.** This course examines the economics of the healthcare ecosystem in the US, the approach to funding healthcare services and healthcare research, the dependencies between sectors, and trends in healthcare service productivity and cost. It also compares the current US healthcare ecosystem to that of several other countries, and recent proposals to change healthcare financing, improve healthcare services productivity, and influence decisions by providers and patients. Students will learn how basic economic and finance concepts, principles, and theories can be used to think about and illuminate various healthcare issues, and how these concepts and principles can be applied to balanced scorecard metrics. The course culminates with an in-depth analysis of the structure, conduct, and performance of the markets for physician, hospital, pharmaceutical, and long-term care services. Prerequisite: MBA 802, or by permission. 3 credits.

**MBA 804. Healthcare Operations Management.** The course will provide the student with the quantitative tools and qualitative concepts to be applied to problems and case studies related to the management of healthcare organizations. Topics include an overview of transformations, processes and systems, quality management, human resources, scheduling and control, and materials management. Emphasis is on mathematical foundations and quantitative techniques of management science/operations research (MS/OR), related qualitative MS/OR tools and applications, the priority/capacity organizational concepts, and the strategy underlying operations. The course introduces appropriate computer software. Prerequisite: MBA 802, or by permission. 3 credits.

**MBA 805. Financial Policy.** A quantitative and qualitative approach to managerial problems of short and long term financing, asset management, and dividend policies, to advance the understanding of financial concepts, policies, theories and tools to make investment and financing decisions. Emphasis placed on the application of experience to class discussion based on the use of "The Wall Street Journal." The primary objective of this course is to be able to evaluate investment opportunities, understand the various sources of financing and its impact on the firm's structure. 3 credits.

**MBA 807. Business Innovation and Creativity.** This course will focus on developing new ways of thinking, which are different from those typically learned in MBA programs. An important element of a creative culture is the use of breakthrough innovative thinking and processes. Business innovation represents a powerful alternative to the dominant management approaches of the last few decades and is an important perspective for future business leaders to embrace. Topics include: institutionalizing innovation, using TRIZ (Theory of Inventive Problem Solving), creativity and opportunity recognition in organizations, gaming theory, open versus closed innovation, innovation and business models, analysis of customer decision-making behavior, and innovation in service. 3 credits.

**MBA 810. Organizational Behavior.** Utilizing an experiential case study method, this course surveys the evolution of theory and research in the areas of organization behavior. Learning topics include motivation theory, group dynamics, leadership, decision-making, conflict transformation, emotional intelligence and communication. The course affirms a systemic perspective and approach to organizational behavior, a systematic presentation of theory and research in areas of organizational behavior; including motivation, group dynamics, leadership, decision-making, organization change, career planning, and communication. 3 credits.

**MBA 815. Marketing Management.** A focus on issues in the interplay between marketing and society including the ethics of selling, advertising, marketing research, and the social responsibility of marketers. An understanding of the role of marketing in businesses and not-for-profit organizations and its importance for individuals within a society. Discover how marketing interfaces with domestic and global environments. Understand consumer and organizational buyer behavior for identifying market opportunities, segmenting and targeting markets, and developing positioning strategies. 3 credits.

**MBA 817. Business and Technology.** This course examines the role technology plays in collaboration and knowledge management in business organizations. The class will present both theoretical and applied concepts, including organizational knowledge models, knowledge exchange, collaboration tools, Communities of Practice, and Web 2.0. Case studies are employed to build critical thinking skills, especially for a recurring analysis of the complex relationship between people, information, and IT. 3 credits.

**MBA 825. Executive Communications.** Executive Communications focuses on the communication skills that managers at all levels must acquire, develop and demonstrate in order to achieve success in the workplace. The course combines communication theory with practical techniques for conveying information; for motivating associates and enhancing teamwork via the spoken and written word; and for exhibiting leadership through language at the interpersonal, small group and organizational levels. Organizational communications skills, emphasizing writing, speaking and listening techniques and interpersonal communication are included. Must be one of the first 3 courses taken in the MBA program. 3 credits.

**MBA 827. Project Management.** Project Management is "the application of knowledge, skills, tools and techniques to project activities to meet project requirements," as defined by the Project Management Body of Knowledge (PMBOK®). The course provides students an introduction to the five process groups of project management, the nine knowledge areas of project management, and the Project Management Institute (PMI®). Introduces appropriate project management computer software. 3 credits.

**MBA 840. Operations Management.** Surveys mathematical foundations and fundamental principles and theories of models used in management science, quantitative techniques of management science/operations research (MS/OR), related MS/OR tools and applications, the priority/capacity organizational concepts, and the strategy underlying operations. This course includes a review of probability and statistical concepts that will be necessary to understand quantitative techniques and systems approaches to the management of production, service, and retail organizations. A philosophy of problem solving will be introduced as well as system thinking and the use of models in problem solving. Emphasis is placed on analyzing and critically evaluating ideas, arguments, and points of view to make "real life" business decisions. Decisions are made with consideration of the resources available, costs (both internal and external) and the impact on all interested parties. Topics include supply chain management and control of inventory, forecasting, and quality management. Emphasis is on mathematical foundations and introduces appropriate computer software. 3 credits.

**MBA 845. Operations Management II.** This course builds on the fundamentals introduced in MBA 840, with the same Emphasis on analyzing and critically evaluating ideas, arguments, and points of view to make "real life" business decisions. Decisions are made with consideration of the resources available, costs (both internal and external) and the impact on all interested parties. More involved quantitative models and tools are used, including Queuing models, Simulations and Linear Programming applications. Decisions regarding the best use of limited resources, staffing requirements, and facility location/layout are featured. Emphasis is on mathematical foundations and introduces appropriate computer software. Prerequisite: MBA 840. 3 credits.

**MBA 847. Sales Management.** This course will utilizing an experiential case study method, this course critically examines the role of sales management in crafting and executing business strategy. Emphasis is placed on the functions of a sales manager, including the planning, execution, and control of a sales force. Topics are investigated using case study, in class discussion, and analytical and hands on exercises. 3 credits.

**MBA 850. Human Resource Management.** A survey of personnel management activities in organizations including exploration of recent developments in the field of human resource management. Topics include human resource planning, recruitment, selection, training, equal employment opportunity, performance appraisal, discipline, career planning, compensation, safety, and health. Instruction method includes case study, readings, and classroom lecture. 3 credits.

**MBA 855. Legal Environment of Business.** Legal concepts and principles important to business decision making including employment law, labor-management relations and relevant legislation, tax consequences of business transactions, government regulation, contract law, and application of the Uniform Commercial Code to business transactions. Case study, readings, and lecture. 3 credits.

**MBA 857. Supply Chain Management.** This course takes a strategic, managerial, and cross-functional view of supply chain management, enabling managers to participate in the vision and implementation of world-class supply chain networks. To achieve this, the course introduces a Supply Chain Roadmap process model as a guiding framework for designing and implementing integrated supply chains. Students will gain the knowledge and analytical tools to perform analysis and act as change agents within their organizations. 3 credits.

**MBA 860. International Business Management.** The theories, concepts, practices, and techniques of conducting business in foreign countries. The strategic issues, the operational practices, and the governmental relations of multinational companies are analyzed through the use of case studies, videos, lectures, the development of an international strategic plan, and an international trade game. Topics include: economic, political, and cultural integration; trade restrictions and barriers; overseas investment and financing; entry into foreign markets and marketing strategies 3 credits.

**MBA 865. Entrepreneurship.** Entrepreneurship, intrapreneurship, small business, and acquisitions. Special attention to entrepreneurial behavior, sources of funding and actual case studies in the development of new enterprises. 3 credits.

**MBA 870. Labor Management Relations.** Directed primarily to the understanding of the issues and alternatives arising out of the work place. The course provides both an overview of what has been identified as industrial relations as well as familiarity with the tools used by its practitioners. Students will study negotiation, administration, wage/fringe issues, and contents of labor agreements. 3 credits.

**MBA 875. Managerial Decision Making.** Provides students previously exposed to managerial accounting principles with the essential tools and strategies managers need to develop data for making decisions related to pricing strategy; product expansion, discontinuance or redesign; performance measurement; resource allocation and management; merger and acquisition planning; and other types of managerial decisions. Stresses ways to avoid mistakes that result when internal decision-making is based on data developed for external financial reporting. Business topics covered include financial statement analysis, responsibility accounting, Economic Value Added (EVA), and Activity Based Costing (ABC). 3 credits.

**MBA 880. Investments and Portfolio Management.** Reviews the tools essential for sound money management. Considers the goals of the investor with respect to risk exposure, tax environment, liquidity needs and appreciation versus income potentials. Strategies will be developed to satisfy these objectives. Mathematical models of portfolio selection to help reduce risk through diversification will be developed. Special attention will be paid to the theories of determinants of asset prices, including the capital-asset pricing model. 3 credits.

**MBA 885. Ethical Leadership.** A focus on the examination of leadership theories and concepts and how to recognize, analyze, and resolve ethical dilemmas in our leadership roles. Through the use of case studies and self analysis, students will assess: corporate social responsibility; the public and private morality of leaders; the moral obligations of leaders and followers; the ways in which leaders shape the moral environment of institutions; the temptations of power; and leader-follower interaction. 3 credits.

**MBA 890. Special Topics.** This course option allows for the exploration of current topics in the field of business management. Topics include Risk Management, Business and Technology, Supply Chain Management, Project Management, International Trade Policy, and Health Care Management. This course may be repeated for credit as topic changes. 3 credits.

**MBA 895. Strategic Management.** Strategic Management is a capstone course to be taken near or at the completion of the MBA program. Strategic Management is designed to tie together and integrate all the business courses taken by challenging students to look at a total organization and what it must do to compete successfully in its environment. This course includes an examination of the many principles and techniques used today in strategy formation and implementation. Case studies will be used extensively throughout the course to enhance understanding of strategy concepts and practices. Also included is the strategic management of large and small business entities, including the formulation and evaluation of missions, strategies, objectives, and policies. Historical and current situations are discussed. Cases are widely used and outside research is required. Prerequisite: 24 hours of graduate credit. 3 credits.

#### *Master of Music Education Courses*

**MME 801. Foundations of Music Education.** A consideration of philosophical and historical issues in music education and their implications for developing curricular and instructional approaches to the field. A core course. 3 credits.

**MME 802. Research Methods in Music Education.** A study in the organization, presentation, interpretation, and documentation of research that makes use of encyclopedias, indices, databases, and other aids. A core course. 3 credits.

**MME 803. Technology for Music Educators.** An exploration of how technology can enhance the music learning process. This course examines what is involved in planning, configuring, and teaching various technology systems and applications so as to facilitate creative interaction with musical experiences. A core course. 3 credits.

**MME 804. Psychology of Music Learning.** An investigation and discussion of theories of learning as they relate to the teaching of music. This course includes the study of specific teaching strategies and the nature of musical response. A core course. 3 credits.

**MME 805. Project.** Graded pass/fail. 3 credits.

**MME 806. Thesis.** Graded pass/fail. 3 credits.

**MME 830. Private Applied.** Up to a maximum of 3 elective credits in the program (including MME 840). 1 credit.

**MME 840. Private Applied.** Up to a maximum of 3 elective credits in the program (including MME 830). 2 credits.

**MME 890. Special Topics.** Elective courses will be offered as special topics courses, (e. G., Teaching Choral Music, Teaching General Music, Teaching Instrumental Music, Theory for Teaching, Graduate Music History Seminar, Music in Early Childhood, Music and the Exceptional Child, Statistics for the Music Researcher, Conducting, Arranging [band scoring, choral arranging, jazz arranging]). This course may be repeated for credit as topic changes. 3 credits.

#### *Master of Science Education Courses*

**MSE 800. Introduction to Science Education in the Classroom.** This is an introduction to the content and methodology of science instruction as it relates to hands-on, minds-on science process skills appropriate for school classrooms. This course showcases constructivist strategies which will be used in subsequent courses. 3 credits.

**MSE 801. Principles of Biology and Life Science.** This course addresses biology and life science concepts prevalent in virtually all science curricula, as well as those set forth in the National Science Education Standards. Students engage in the use of scientific methods to address topics typically taught in biology and life science courses. 3 credits.

**MSE 802. Principles of Chemistry.** This course utilizes concepts in chemistry to make connections to common substances. Establishing chemistry as an integral part of everyday life, as well as discoveries made by chance, will make this topic relevant to all students. Prerequisite: MSE 800. 3 credits.

**MSE 803. Principles of Physics and Physical Science.** This course utilizes hands-on experimental methods to gain confidence and experience with inquiry-based learning of physics. Topics include motion, heat, light, electricity and magnetism. Prerequisite: MSE 800. 3 credits.

**MSE 805. Principles of Earth and Space Science.** The interaction and effects of geology, meteorology, and space exploration will be explored in this course. Field study is combined with experimental inquiries from exemplary curricula to illustrate critical connections of physics, chemistry and biology with the earth sciences. 3 credits.

**MSE 809. Curriculum Design I.** This course will address the question: "How does a standards driven science curriculum enhance student learning that is focused on science literacy?" Focusing on curriculum design using a "backward design" model, students will identify the desired results of a science curriculum based on the National Science Education Standards, the PA Academic Standards for Science and Technology, the PA Academic Standards for Environment and Ecology, and the PA assessment anchors. Students will explore research-based rationale for reform in science education and address the use of statistics in analyzing science education research as well as local, state and national assessments. Enduring understandings, content worthy of understanding and the development of essential questions for science courses will be addressed. Prerequisites: MSE 800 and nine credits of required science courses. 3 credits.

**MSE 810. Curriculum Design II.** This course is a continuation of Curriculum Design I and must be scheduled for the semester following Curriculum Design I. After identifying the desired results of a science curriculum, students will determine and develop acceptable and appropriate assessments that probe evidence of student understanding. A variety of assessment techniques with a focus on differentiated and authentic performance-based assessment will be presented. Finally, using clearly identifiable results and appropriate evidence of understanding, students will plan differentiated learning experiences and instruction to develop student understanding. Prerequisite: MSE 809. 3 credits.

**MSE 820. Seminar.** This course will permit some flexibility to explore current topics in elementary/middle school education as they arise. Seminar courses permit special topics to be included in the course of study. Recent offerings include literacy in science, forensics, and multimedia science. In addition, certain transfer courses may be valid for degree accreditation but may not be a complete match in the courses listed. May be repeated for credit. 1-3 credits.

**MSE 829. Research Methods.** This course is designed to develop the understanding of the methods employed in planning and developing research in science. You will gain experience in generating ideas for research, critically evaluating literature, synthesizing and presenting results of research and writing in a clear and organized way. 3 credits.

**MSE 830. Independent Research in Science Education.** A topic relevant to the teaching of science in the classroom will be researched with the approval of the student's advisor. The topic of research should be well documented in professional journals and studies. Graded pass/fail. May be repeated for credit. Prerequisite: MSE 829. 1-3 credits.

**MSE 850. Independent Study.** May be repeated for credit. 1-6 credits.

### *Physical Therapy Courses*

**PHT 710. Spanish for Physical Therapy and Rehabilitation.** An introduction to the basic conversational and medical/technical vocabulary needed to communicate with Spanish-speaking patients. 2 credits.

**PHT 716. Health Promotion for Self and Society.** Covers health and health promotion topics across the lifespan. Students will begin to identify community needs that would benefit from a physical therapy program of prevention, health promotion, wellness, and screening services. 3 credits.

**PHT 720. Neuroscience.** Neuroscience examines the anatomy and physiology of the nervous system and changes that occur across the life-span, relevant pathophysiology and the functional manifestations of this pathology, and acquisition of basic neurologic examination skills. 4 credits.

**PHT 726. Clinical Interventions I.** First of a two course sequence designed to instruct students in the use of therapeutic modalities to affect change in human tissues. Laboratory exercises include applying modalities, gait training with various devices, and therapeutic exercise. 4 credits.

**PHT 728. Musculoskeletal I.** First of a two course sequence providing an in depth study of the evaluation, assessment, and treatment methods used in the management of musculoskeletal pathology and/or injury. This first component of the two course sequence will emphasize the upper and lower limbs, with an introductory component to the spine. 4 credits.

**PHT 730. Clinical Interventions II.** A continuation of Clinical Intervention I. This course will examine edema and integumentary concerns, incontinence, and specific exercise techniques. 4 credits.

**PHT 732. Musculoskeletal II.** Second of a two course sequence providing an in-depth study of the evaluation, assessment, and treatment methods used in the management of musculoskeletal pathology and injury. This course will build upon material studied in PHT 728 and emphasize anatomical, biomechanical, and physiological factors relevant to musculoskeletal dysfunction. 3 credits.

**PHT 736. Neuromuscular Physical Therapy I.** Provides an examination of techniques used in the examination and assessment of persons with nervous system dysfunction. 4 credits.

**PHT 738. Geriatrics Physical Therapy.** Presents the aging process in relation to pathokinesiology, the immune system, cardiopulmonary system, musculoskeletal system, neuromuscular function, and therapeutic intervention adaptation. 3 credits.

**PHT 740. Prosthetics and Orthotics.** Provides a detailed examination of the physical therapy management of individuals requiring splinting or bracing, as well as individuals with amputations requiring prosthetic devices. 2 credits.

**PHT 750. Evidence Based-Critical Inquiry II.** This is the second in a series of a four-part course sequence of critical inquiry/evidence-based physical therapy. In this course, the student will begin the process of developing a case study (using a clinical case that was obtained in the student's first clinical affiliation) that is evidenced-based. The concepts of sensitivity, specificity, responsiveness to change and the epidemiologic concepts of prevalence, incidence, ratios, and proportions are covered. 2 credits.

**PHT 752. Evidence Based-Critical Inquiry III.** This is the third course in a four-part course sequence of critical inquiry/evidence-based physical therapy. The extensive use of Comprehensive Appraisals of a Topic is the central theme of this semester. Current published research topics include: clinical prediction rules, prognosis, low back dysfunction, shoulder dysfunction and patient satisfaction. 2 credits.

**PHT 760. Clinical Education I.** Students will be assigned to a supervising Clinical Instructor (CI) and have the opportunity to examine, evaluate, propose, and implement intervention strategies in a full-time clinical experience. Students will complete documentation for patient care management and are expected to demonstrate professional behaviors. Graded pass/fail. 3 credits.

**PHT 762. Clinical Education II.** A seven-week, full-time supervised clinical learning experience to provide students the opportunity to develop clinical competence in the physical therapy management of individuals in an ambulatory or inpatient environment. Graded pass/fail. 3 credits.

**PHT 764. Clinical Education III.** The second, seven-week supervised clinical learning experience where students continue to develop clinical competence in the management of various musculoskeletal, cardiovascular- pulmonary, integumentary, and neuromuscular disorders. Graded pass/fail. 3 credits.

**PHT 795. Student Run Free Clinic III.** This is one of a series of courses offered to all physical therapy students in the graduate phase of the program who are interested in participating in the LVC student run free physical therapy clinic for individuals who are underinsured/ uninsured in the community. Students have the opportunity to work with patients throughout the semester, as well as manage all aspects of the clinic. Students will be supervised throughout the experience by licensed physical therapists. Students will be required to undergo HIPPA, OSHA, Standard Precautions, and CPR training and demonstrate competency in all areas prior to working in the clinic. Graded pass/fail. 0 credits.

**PHT 796. Student Run Free Clinic IV.** This is one of a series of courses offered to all physical therapy students in the graduate phase of the program who are interested in participating in the LVC student run free physical therapy clinic for individuals who are underinsured/ uninsured in the community. Students have the opportunity to work with patients throughout the semester, as well as manage all aspects of the clinic. Students will be supervised throughout the experience by licensed physical therapists. Students will be required to undergo HIPPA, OSHA, Standard Precautions, and CPR training and demonstrate competency in all areas prior to working in the clinic. Graded pass/fail. 0 credits.

**PHT 802. Physical Therapy Administration and Management.** Examines current issues and trends in physical therapy clinical management. 4 credits.

**PHT 830. Neuromuscular PT II.** Examines in detail through a case-based approach specific neurologic conditions, the resulting impairments and functional limitations, and the physical therapy management of persons presenting with these conditions. 4 credits.

**PHT 832. Pediatric Physical Therapy.** Presents an introduction to the physical therapy management of pediatric patients. Topics include normal motor development, and client examination, evaluation, and intervention aimed at improving function and limiting disability. 4 credits.

**PHT 834. Selected P.T. Practice Topics.** This course will cover specialized physical therapy practice areas and advanced evaluative, assessment, and interventional strategies for special populations. 2 credits.

**PHT 836. Differential Diagnosis.** Designed to integrate the curricular content to date. In this capstone course, students will demonstrate differential diagnosis as it relates to autonomous practice in realistic clinical situations. 3 credits.

**PHT 850. Evidence Based-Critical Inquiry IV.** This is the capstone course in a four-part course sequence of critical inquiry/evidence-based physical therapy. A formal case study is prepared in two formats for presentation at a professional meeting. The poster format is developed using the elements of the "Physical Therapist Patient Management Model" as well as a formal case study document detailing the evidence gathered. 2 credits.

**PHT 860. Clinical Education IV.** Final, full-time supervised clinical learning experience spanning sixteen weeks in a multidisciplinary care environment. Students will demonstrate patient management skills for pediatric or adult patients with complex medical diagnoses utilizing an evidence-based approach. Graded pass/fail. 12 credits.

**PHT 895. Student Run Free Clinic V.** This is one of a series of courses offered to all physical therapy students in the graduate phase of the program who are interested in participating in the LVC student run free physical therapy clinic for individuals who are underinsured/ uninsured in the community. Students have the opportunity to work with patients throughout the semester, as well as manage all aspects of the clinic. Students will be supervised throughout the experience by licensed physical therapists. Students will be required to undergo HIPPA, OSHA, Standard Precautions, and CPR training and demonstrate competency in all areas prior to working in the clinic. Graded pass/fail. 0 credits.

# DIRECTORY

## Board of Trustees, Lebanon Valley College

### Officers

Lynn G. Phillips '68.....	Chair
Katherine J. Bishop .....	Vice Chair
George M. Reider '63 .....	Vice Chair
Harry B. Yost '62.....	Secretary
Beth Esler Douglas.....	Assistant Secretary
Deborah R. Fullam '81.....	Treasurer
George J. King '68 .....	Assistant Treasurer

### Trustees

- Kristen R. Angstadt, '74, B.A., M.A., Ph.D.; *Psychologist/Supervisor of Pupil Services, Capital Area Intermediate Unit #15 (2013).*
- Katherine J. Bishop, B.A., M.B.A.; *President, Lebanon Seaboard Corporation (2012).*
- Edward D. Breen, B.S.; *Chairman and C.E.O., Tyco Electronics (2013).*
- Terence C. Brown '78, B.A.; *President, Brown Technology Group (2014).*
- Rev. Alfred T. Day III, B.A., M.Div.; *Senior Pastor, Historic St. George's Methodist Church in Old City. (2013).*
- Wesley T. Dellinger, '75, B.S. CRS, GRI, CSP; *Associate Broker and Director, Brownstone Real Estate Company (2012).*
- Geret P. DePiper '68, B.A.; *Retired Senior Vice President and Chief Operating Officer, CSX World Terminals, LLC (2013).*
- Susanne Harley Dombrowski '83; *Principal and Shareholder, Brown, Schultz, Sheridan & Fritz (2014).*
- Ronald J. Drnevich, B.S.; *Retired Chairman and CEO, Gannett Fleming Inc. (2014).*
- Renee Fritz '13; *Student, Lebanon Valley College (2013).*
- James G. Glasgow Jr., '81, B.A.; *Managing Director/Partner, Five Mile Capital Partners, Inc. (2014).*
- Robert E. Harbaugh, '74, B.S., M.D.; *Professor and Chairman, Department of Neurosurgery, The Pennsylvania State University, Milton S. Hershey Medical Center (2012).*
- Marc A. Harris, B.A., Ph.D.; *Associate Professor of Chemistry, Lebanon Valley College (2012).*
- Wendie DiMatteo Holsinger, B.A., M.Ed.; *Chief Executive Officer, A.S.K. Foods, Inc. (2014).*
- John F. Jurasits Jr., B.S.; *Retired Vice President, Solution Technologies, Inc. (2012).*
- George J. King, '68, B.S., CPA; *Chief Financial Officer, Energy Intelligence Group; President, RWS Energy Services, Inc. (2014).*
- Malcolm L. Lazin '65, B.S., J.D.; *Executive Director, Equality Forum (2014).*
- Stephen C. MacDonald, B.A., Ph.D.; *President, Lebanon Valley College.*
- Daniel K. Meyer '81, B.A. M.D.; *Assistant Professor of Medicine, University of Pennsylvania (2012).*
- Carroll L. Missimer, '76, '79, B.A., B.S., M.S., Ph.D.; *Environmental Biologist and Global Director for Environmental Affairs, P.H. Glatfelter Company (2012).*
- Chester Q. Mosteller '75, B.S.; *President, Mosteller and Associates (2014).*
- Stephen M. Nelson '84, B.S.; *Chief Financial Officer, Haines and Kibblehouse (2014).*
- Renee Lapp Norris. B.A., M.M., Ph.D.; *Associate Professor of Music, Lebanon Valley College (2013).*
- John S. Oyler, A.B., J.D.; *Director of Acquisitions, Faulkner Organization (2012).*
- Lynn G. Phillips '68, B.S., M.Ed., Ed.D.; *Retired, Aresty Institute of Executive Education, Wharton School of the University of Pennsylvania (2012).*
- George M. Reider Jr. '63; *Retired Insurance Executive and Former Insurance Commissioner, State of Connecticut; Retired Teacher, University of Connecticut and Fordham University of Law (2013).*

Jeffrey W. Robbins, *B.A., M.Div., M.Phil., Ph.D.*; Associate Professor of Religion and Philosophy, Lebanon Valley College (2014).

Stephen H. Roberts '65, *B.S.*; President, Echo Data Services, Inc. (2013).

Elliot Robinson, *Vice President, Administration, Milton Hershey School* (2012).

Elyse E. Rogers '76, *B.A., J.D.*; Partner, Saidis, Sullivan, & Rogers, LLP (2012).

Tracy Smith Stover '91, *B.A., M.B.A.*; Partner and Global Leader, Chemicals, Pricewaterhouse-Coopers.

Alan A. Symonette, *B.A., J.D.*; Arbitrator (2014).

Ryan H. Tweedie '93, *B.S.*; Founder and Managing Partner, Sapien, LLC (2013).

Elizabeth R. Unger '72; *Anatomical Pathologist and Research Team Leader, Center for Disease Control* (2012).

Albertine P. Washington, *B.A., P.D.*; Retired Elementary Educator, Lebanon School District (2013).

Samuel A. Willman '67, *B.S.; M.Com.*; President, Delta Packaging, Inc. (2014).

Harry B. Yost Esq. '62, *B.S.; LL.D., LL.M.*; Attorney, Senior Partner, Appel & Yost, LLP (2012).

Kelly E. Zimmerman '12; *Student, Lebanon Valley College* (2012).

#### *Emeriti*

Edward H. Arnold, *B.A.; L.H.D.*; Chairman, C.E.O. and President, Arnold Logistics.

Raymond H. Carr; *Realtor; Commercial and Industrial Developer.*

Ross W. Fasick, '55, *B.S., M.S., Ph.D., L.H.D.*; Retired Senior Vice President, E.I. DuPont de Nemours & Co.

Eugene R. Geesey '56, *B.S.*; Retired Owner/President, CIB, Inc.

Martin L. Gluntz '53, *B.S., M.S., Ph.D.*; Retired Vice President, Technical Services, Hershey International Division, Hershey Foods Corporation.

Elaine G. Hackman '52, *B.A.*; Retired Business Executive.

Gerald D. Kauffman '44, *A.B., M.Div., D.D.*; Officer of the Courts, County of Cumberland; Pastor Emeritus, Grace United Methodist Church, Carlisle.

William Lehr Jr., *B.B.A., J.D.*; President and Chief Executive Officer, Capital Blue Cross.

Kenneth H. Plummer; *Retired President, E.D. Plummer Sons, Inc.*

Thomas C. Reinhart '58, *B.S. L.H.D.*; Retired Owner/President, T.C.R. Packaging, Inc.

Bruce R. Rismiller '59, *B.A., M.Ed.*; Retired Executive Vice President, Northwest Airlines.

F. Allen Rutherford Jr. '37, *B.S., LL.D.*; Retired Ernst & Young C.P.A.

Daniel L. Shearer '38, *A.B., S.T.M., D.D.*; Retired Pastor, United Methodist Church.

Morton Spector, *L.H.D.*; Chairman of the Board, Design House Kitchens and Appliances.

Elizabeth K. Weisburger '44, *B.S., Ph.D., D.Sci.*; Retired Chief of Carcinogen Metabolism and Toxicology Branch, National Cancer Institute.

Harlan R. Wengert, *B.S., M.B.A., D.Sci.*; Retired Chairman of the Board, Wengert's Dairy, Inc.

J. Dennis Williams, *B.A., M.Div., D.Min., D.D.*; Retired United Methodist Clergyman; Senior Pastor, St. John's United Methodist Church.

#### *Honorary*

Suzanne H. Arnold, *L.H.D.*; Community Leader and Philanthropist.

Bishop Peggy A. Johnson, '75, *B.A., M.Div., D.Min.*; The United Methodist Church, Philadelphia Area.

F. Obai Kabia '73, *B.S., M.P.A.*; Retired Operations Officer, United Nations Organization.

Bishop Jane Allen Middleton, *B.A., M.Div.*; The United Methodist Church, Harrisburg Area, Northeastern Jurisdiction.



## ADMINISTRATION

### *President*

Stephen C. MacDonald, 1998–; *President, Professor of Humanities*. B.A., Tufts University, 1969; Ph.D., University of Virginia, 1977.  
Beth Esler Douglas, 2004–; *Executive Assistant to the President*, 2004–; B.A., Dickinson College, 1985.

### *College General Officers*

Anne M. Berry, 2000–; *Vice President for Advancement*. A.B., Franklin & Marshall College, 1977.

William J. Brown, Jr., 1980–; *Vice President of Enrollment*, 2007–. B.A., Lebanon Valley College, 1979; M.B.A., Philadelphia University, 1988.

Deborah R. Fullam, 1982–; *Vice President for Finance*, 1995–. B.S., Lebanon Valley College, 1981; M.B.A., Philadelphia University, 1988.

Michael R. Green, 2009–; *Vice President for Academic Affairs and Dean of the Faculty*, B.M.E., Illinois State University, 1982; M.Mus., University of Indiana, 1984; D.M.A., University of Iowa, 1988.

Gregory H. Krikorian, 2007–; *Vice President for Student Affairs*. B.A. Niagara University, 1984; M.A., Bowling Green State University, 1990.

Robert A. Riley, 1976–1978, 1988–; *Vice President for Administration and Information Technology*, 1995–. B.S., Elizabethtown College, 1976.

Martin J. Parkes, 2011–; *Executive Director of Marketing and Communications*, 2011–; B.A., Trinity College, 1981.

## ADMINISTRATIVE OFFICERS

### *Academic Affairs*

Michael R. Green, 2009–; *Vice President for Academic Affairs and Dean of the Faculty*, B.M.E., Illinois State University, 1982; M.Mus., University of Indiana, 1984; D.M.A., University of Iowa, 1988.

Maureen Anderson, 2009–; *Access Services Librarian*. B.A., Lebanon Valley College, 2000; M.S.L.S., Clarion University, 2007.

Shannon Brandt, 2009–; *Assistant Dean for Student Success and Academic Advising*. B.A., Alvernia College, 1994; M.S., West Chester University, 2000.

Kent A. Brusstar, 2011–; *Interim Coordinator of the MSE Program*. B.S., Delaware Valley College, 1977; M.S.E., Lebanon Valley College, 2006.

A. Blaine Carfagno, 2010–; *Assistant Registrar*. B.S., B.A., Lebanon Valley College, 2008.

Ann E. Damiano, 2010–; *Associate Dean for Academic Affairs*. B.A., State University of New York at Buffalo, 1979; M.Ed., 1983; D.Litt., Drew University, 2010.

Crista A. Detweiler, 2002–; *Assistant Director of the Suzanne H. Arnold Art Gallery*. B.A., Shippensburg University, 1992; M.A., University of Maryland, 2002.

Marian Dura, 2008–; *Director of the MME Program*. B.M. Arizona State University, 1978; M.M., University of Arizona, 1985; Ph.D., Northwestern University, 1998.

Jennifer Easter, 2007–; *Director of the MBA Program*, 2010–; B.S., University of Pennsylvania, 1987; M.P.H., University of California at Los Angeles; M.B.A., 1992.

Yvonne M. Foster, 2003–; *Director of Disability Services*. B.S., Millersville University, 1992; M.S., 1995; M.S., Philadelphia College of Osteopathic Medicine, 2001; Psy.D., 2006.

Andrew S. Greene, 1990–; *Director of Media Services*, 1992–. B.S., Kutztown University, 1990.

Gary Grieve-Carlson, 1990–; *Director of General Education*, 2001–. B.A., Bates College, 1977; M.A., Binghamton University, 1980; Ph.D., Boston University, 1988.

Julia L. Harvey, 1998–; *Technical Services Librarian*. A.A., Cotley College, 1977; B.A., Cedar Crest College, 1979; M.S., Drexel University, 1981; M.A., Rider University, 1990.

Mary Herster, 2010–; *Director of Continued Education and Professional Development*. B.El.Ed., The Pennsylvania State University, 1995; M.A., 2001.

Marcus Horne, 1992–; *Environmental Safety Officer*. B.S., Lebanon Valley College, 1992.

Andrew S. Jenkins, 2009–; *Assistant Director of Media Services*. B.M., Lebanon Valley College, 2005.

Walter Labonte, 1992–; *Director of Writing Center*. B.S., Northeastern University, 1968; M.A., 1977; M.Ed., Curry College, 1984.

Jeremy A. Maisto, 2004–; *Registrar*, 2008–. B.A., Drew University, 2000; M.S., Drexel University, 2011.

Louis Manza, 1995–; *Director, Youth Scholars Institute*, 2009–. B.A., State University of New York at Binghamton, 1988; M.A. Brooklyn College, 1991; M.Phil., City University of New York, 1991; Ph.D., 1992.

Barbara McNulty, 2010–; *Director of the Suzanne H. Arnold Art Gallery*, 2010–. B.S., Messiah College, 1975; M.A., The Pennsylvania State University, 1998; Ph.D., Temple University, 2010.

Donna L. Miller, 1986–; *Readers Services Librarian*. B.S., Millersville University, 1984; B.A., Lebanon Valley College, 1993; M.L.S., Drexel University, 1986.

Frank Mols, 2007–; *Director of the Bishop Library*. B.A., University of Pittsburgh, 1971; M.L.S., 1973.

Lori A. Nyce, 2010–; *Systems and Electronic Services Librarian*. B.A., Lebanon Valley College, 1992; M.S.L.S., Clarion University, 1996.

John J. Peck, O.S.B., 1999–; *Adjunct Catholic Chaplain*. Saint Vincent College and Seminary; Franciscan University.

Jill Russell, 2001–; *Director of Study Abroad*. B.S., University of New Hampshire, 1993; M.S., University of Victoria, 1999.

Susan Szydlowski, 1995–; *Director of Special Music Programs*. B.A., Colby College, 1996.

Hope I. Witmer, 2010–. *Assistant Dean for Graduate Studies and Continuing Education*. B.S.W., Shippensburg University, 1982; M.S.W., Temple University, 1991; Ph.D., Walden University, 2006.

### *Administration and Information Technology*

Robert A. Riley, 1976–1978, 1988–; *Vice President for Administration and Information Technology*, 1995–. B.S., Elizabethtown College, 1976.

Jason Gamble, 2010–; *Web Programmer*, 2010–. B.S., The Pennsylvania State University, 2002.

Robert J. Dillane, 1985–; *Director of Information Management Services*, 1986–. B.S., Lebanon Valley College, 1977.

Todd M. Gamble, 1998–; *Senior PC Support Specialist*, 2006–. B.S., Lebanon Valley College, 1998.

Kent A. Harshman, 2002–; *Database Analyst/Programmer*. B.S., Lock Haven University, 1980.

Angela E. Kinney, 2000–; *Database Specialist*. B.S., Geneva College, 1992.

Margaret A. Lahr, 1988–; *Director of Housekeeping Services*.

Donald Santostefano, 2006–; *Senior Director of Facilities Management*. B.S., Fairfield University, 1975; M.S., Rensselaer Polytechnic Institute, 1979.

Harold G. Schwalm, 1994–; *Director of Building Maintenance*.

David W. Shapiro, 2000–; *Director of Information Technology*, 2010–. B.A., Lebanon Valley College, 1999.

Victoria Trostle, 2004–; *Manager of Service Response Operations*, 2007–; B.S., The Pennsylvania State University, 1974.

Kevin R. Yeiser, 1982–; *Director of Grounds Maintenance*.

Michael C. Zeigler, 1990–; *Director of Client Services*. B.S., The Pennsylvania State University, 1979; M.Ed., 1995.

### *Advancement*

Anne M. Berry, 2000–; *Vice President for Advancement*. A.B., Franklin & Marshall College, 1977.

Shanna G. Adler, 1992–; *Director of Advancement Services*, 2005–; B.S., Bucknell University, 1992.

Jamie N. Cecil, 2004–; *Director of Development*, 2010–. B.A., *The Pennsylvania State University*, 2000; M.B.A., *Lebanon Valley College*, 2007.

Diane P. Gegg, 2011–; *Director of Annual Giving*. B.A., *Indiana University of Pennsylvania*, 1983.

Jayanne N. Hayward, 2005–; *Director of Alumni Programs*, 2007–. B.A., *Lebanon Valley College*,

Michelle A. Krall, 2008–; *Assistant Director of Alumni Programs*. B.A., *Juniata College*, 2008.

2001.

Cindy L. Progin, 1998–; *Director of Advancement Research*, 2004–. B.A., *Lebanon Valley College*, 2004.

Shaylene Scheib, 2008–; *Assistant Director of Annual Giving*. B.S., *Lebanon Valley College*, 2007.

Lindsey Snyder, 2011–; *Director of Advancement Special Events*. B.A., *Lebanon Valley College*, 2002.

### *Enrollment*

William J. Brown, Jr., 1980–; *Vice President of Enrollment*, 2007–. B.A., *Lebanon Valley College*, 1979; M.B.A., *Philadelphia University*, 1988.

Melissa R. Baer, 2010–; *Admission Counselor*. B.S. *Bloomsburg University*, 1993.

Dorothy A. Brehm, 1993–, *Assistant Director of Financial Aid*, 2003–. B.S., *The Pennsylvania State University*, 1976.

Vicki J. Cantrell, 1991–; *Assistant Director of Financial Aid*, 2002–. B.A., *Lebanon Valley College*, 1999.

Kristen L. Etter, 2009–; *Financial Aid Administrator*. B.S. *The Pennsylvania State University*, 1982.

Kendra M. Feigert, 2004–; *Director of Financial Aid*. B.A. *Bloomsburg University*, 1995; M.S., *Millersville University*, 1998.

Susan Jones, 1993–; *Coordinator of Student Retention*, 2011–. B.A., *Lebanon Valley College*, 1992; M.Ed., *Temple University*, 1999.

Keo Oura Kounlavong, 2002–; *Associate Director of Admission*, 2005–; B.A., *Ursinus College*, 2000.

Roberto Marti, 2011–; *Admission Counselor*. B.S. *Lebanon Valley College* 2007.

Erin N. Sanno, 2001–; *Associate Director of Admission*, 2004–. B.A., *Lebanon Valley College*, 1998.

E.J. Smith, 2007–; *Admission Counselor*. B.S., *Lebanon Valley College*, 1990.

Jennifer L. Wert, 2008–; *Admission Counselor*. B.S., *Lebanon Valley College*, 2008.

### *Finance*

Deborah R. Fullam, 1982–; *Vice President for Finance*, 1995–. B.S., *Lebanon Valley College*, 1981; M.B.A., *Philadelphia University*, 1988.

Michelle A. Biever, 2008–; *Text Book Manager*. B.S., *Kutztown University*, 1984; B.S. *Lebanon Valley College*, 2004.

Robert J. Brestensky, 2007–; *Staff Accountant*. B.S., *California University of PA*, 2004.

Ann C. Hayes, SPHR, 2006–; *Director of Human Resources*. B.A., *Millersville University*, 1983; M.P.A., *The Pennsylvania State University*, 1995.

Todd M. Latshaw, 2010–; *Director of Business Services*, B.S., *Elizabethtown College*, 1987; M.B.A., *St. Joseph's University*, 1996.

Dana K. Leshner, 1990–; *Director of Payroll and Benefits Administration*, 2007–. B.A., *Millersville University*, 1977.

Eleanor M. Lewis, CPA, 2009–; *Controller*, B.S., *Indiana University of Pennsylvania*, 1984.

Jennifer S. Liedtka, 1994–; *Director of Institutional Research*, 2005–. B.S., *Lebanon Valley College*, 1992; M.B.A., *Lebanon Valley College*, 2000.

Chad Schreier, 2005–; *Director of the College Store*. B.A., *Lebanon Valley College*, 2005; M.B.A., 2009.

Carrie Skovrinskies, 2004–; *Director of Student Accounts*. B.S., *Lebanon Valley College*, 1998; M.A., *The Pennsylvania State University*, 2001.

### *Marketing and Communications*

Martin J. Parkes, 2011–; *Executive Director of Marketing and Communications*, 2011–. B.A., *Trinity College*, 1981.

Kelly A. Alsedek, 1998–; *Associate Director of College Relations/Director of Publications*, 2002–; B.A., Gettysburg College, 1971.

Jasmine A. Bucher, 2001–; *Director of Web Communications and New Media*, 2009–; B.A., Lebanon Valley College, 1997; M.A., The Pennsylvania State University, 2004; M.B.A., Lebanon Valley College, 2011.

Sarah C. Dull, 2010–; *Assistant Director of Sports Information/Web Writer*. B.S., Ithaca College, 2008.

Timothy E. Flynn, 2007–; *Director of Sports Information*. B.A., Lebanon Valley College, 2005.

Thomas M. Hanrahan, 1997–; *Director of College Relations*, 1999–. B.A., East Stroudsburg University, 1990; M.Ed., 1992; D.Ed., The Pennsylvania State University, 2004

Meghan Gibson Johnson. 2009–; *Publications and Web Assistant*. B.S., Philadelphia University, 2009.

Emily Whitmoyer, 2010–; *Director of Media Relations and Campus Communications*; B.S., Texas A&M University, 2008.

### *Student Affairs*

Gregory H. Krikorian, 2007–; *Vice President for Student Affairs*. B.A., Niagara University, 1984; M.A., Bowling Green State University, 1990.

Valerie G. Angeli, 2003–; *Director of Health Services*, 2010–. B.S.N., Lebanon Valley College, 1982; R.N., Diploma, Geisinger Medical Center School of Nursing, 1982.

Richard L. Beard, 1994–; *Director of Athletics*, 1997–. B.A., Lebanon Valley College, 1989; M.B.A., 1992.

Jennifer Dawson Evans, 1991–; *Director of Student Activities and the College Center*, 1995–. B.S., Kansas State University, 1989; M.S., Shippensburg University, 1991.

Stephanie A. Falk, 2008–; *Director of Counseling*. B.A., Villanova University, 1987; M.A., University of Richmond, 1989; Ph.D., Loyola University of Chicago, 1995.

Paul Fullmer, 2005–; *Chaplain*; B.S., University of Southern California, 1990; M.Div., Fuller Theological Seminary, 1994; Ph.D., Graduate Theological Union, Berkeley, 2005.

Sharon Givler, 2003–; *Director of Career Services*, 2005–. B.A., Geneva College, 1974; M.Ed., Millersville University, 1984.

Jason A. Kuntz, 2000–; *Director of Residential Life*, 2005–. B.A., Baldwin-Wallace College, 1996; M.Ed., University of South Carolina, 1998.

Angelic Lopez-Heagy, 2010–; *Counselor*. B.A., Syracuse University, 2003; M.S.W., Temple University, 2007.

Katelyn Maher, 2010–; *Residential Life Area Coordinator*, 2010–. B.S., University of Scranton, 2008; M.S., Canisius College, 2010.

Leah M. Mauro, 2009–; *Residential Life Area Coordinator*. B.A., Millersville University, 2004; M.S., Holy Family University, 2009.

Robert L. Mikus, 2011–; *Associate Dean of Student Affairs*. B.A. Lebanon Valley College, 1990; M.A., LaSalle University, 1993.

Gwendolyn Miller, 2008–; *Assistant Director of Career Services*. B.A., New Mexico State University, 2006; M.Ed., University of North Texas, 2008.

Robert K. Nielsen, 1993–; *College Physician*. M.D., Albany Medical College, 1975.

Brent Oberholtzer, 2010–; *Director of Public Safety*. B.S. York College, 1987.

Brandon H. Smith, 2009–; *Residential Life Area Coordinator*. B.A., Marywood University, 2005.

Venus Ricks, 2010–; *Director of Multicultural Affairs*. B.A., Susquehanna University 2001; M.A. University of Massachusetts, 2009.

Todd C. Snovel, 2006–; *Associate Director of Student Activities and Engagement*, 2011–; B.A., Lebanon Valley College, 2006.

Melissa Weidler, 2008–; *Director of the Arnold Sports Center*. B.S. East Stroudsburg University, 1993.

Rosemary Yuhás, 1973–; *Dean of Student Affairs*, 1991–. B.S., Lock Haven University, 1966; M.Ed., West Chester University, 1970.

### *Athletics*

Richard L. Beard, 1994–; *Director of Athletics*, 2007–. B.A., Lebanon Valley College, 1989; M.B.A., 1992.

Joseph E. Buehler III, 2004–; *Assistant Football Coach, Coordinator for Recruitment*. B.A., Lebanon Valley College, 1989; M.Ed., Millersville University, 2004.

Mark Costello, 2009–; *Assistant Football Coach*; B.S., Susquehanna University, 2004.

Danielle M. Cowdell, 2009–; *Head Cheerleading Coach. B.S., Lebanon Valley College, 2009.*

John Denver, 2011–; *Assistant Men's Ice Hockey Coach. B.S., The Pennsylvania State University.*

Keith Evans, 1992–; *Head Baseball Coach, 2003–. B.S., California University of Pennsylvania, 1990.*

Lauren N. Frankford, 2002–; *Head Women's Soccer Coach; Assistant Athletic Director, B.A., Gettysburg College, 2000.*

Mary M. Gardner, 1994–; *Aquatic Director, Head Swim Coach, 1997–. B.A., Gettysburg College, 1977; M.Ed., The Pennsylvania State University, 1996.*

Todd Goclowski, 2006–; *Head Women's Basketball Coach. B.A., Clark University, 1990.*

Kenneth C. Grimes, 2005–; *Head Men's Soccer Coach. B.S., Elizabethtown College, 1997; M.Ed., Millersville University, 2004.*

John Haus, 2009–; *Head Coach Men's Lacrosse Coach. B.S., University of North Carolina at Chapel Hill, 1983.*

Stacey L. Hollinger, 1998–; *Head Softball Coach. Assistant Athletic Director; Compliance Coordinator, 2004–. B.S., Millersville University, 1989.*

Erin Kolacek, 2010–; *Head Athletic Trainer. B.S. Eastern University 1999; M.S., California University of Pennsylvania, 2002.*

Brad F. McAlester, 1994–; *Head Men's Basketball Coach. B.A., Southampton College of Long Island University, 1975.*

Carol Miller, 2011–; *Head Field Hockey Coach. B.S., University of Delaware, 1982.*

James P. Monos Jr., 2004–; *Head Football Coach, 1986–1996; 2004–. B.S., Shippensburg State College, 1972; M.Ed., Western Maryland College, 1978.*

James O'Brien, 2008–; *Head Men's and Women's Cross Country Coach. B.S. Political Science, Lebanon Valley College, 2007.*

Vincent E. Pantalone, 2004–; *Assistant Football Coach. B.A., Moravian College, 1977; Secondary Certificate, Penn State Capitol Campus, 1989.*

Don Parsons, 2011–; *Head Men's Ice Hockey Coach.*

Wayne Perry, 1987–; *Head Women's Volleyball Coach, 1988–. B.S., Lebanon Valley College, 1978.*

Brianne Tierney, 2009–; *Head Women's Lacrosse Coach. B.A., Colgate University, 2007.*

Melissa Weidler, 2008–; *Head Men's and Women's Track and Field Coach. B.S., East Stroudsburg University. 1993.*

## FACULTY

### Active

Sharon O. Arnold, 1986–; *Associate Professor of Sociology. Chairperson of the Department of Sociology. B.A., University of Akron, 1964; M.A., 1967; M.S.W., Temple University, 1994.*

Tami L. Barton, 2008–; *Assistant Professor of Accounting. B.S., Shepherd College, 1986; M.B.A., St. Joseph's University, 1996.*

Philip J. Benesch, 2005–; *Associate Professor of Political Science. B.A., University of London, 1981; M.A., London School of Economics, 1982; Ph.D., University of Delaware, 2003.*

Philip A. Billings, 1970–; *Professor of English. B.A., Heidelberg College, 1965; M.A., Michigan State University, 1967; Ph.D., 1974.*

Kristen L. Boeshore, 2005–; *Assistant Professor of Biology. B.S., Lebanon Valley College, 1992; Ph.D., Case Western Reserve University, 1998.*

Michelle Bonczek, 2010–; *Assistant Professor of English. B.S., State University of New York at Brockport, 1997; M.A., 2000; M.F.A., Eastern Washington University, 2004; Ph.D., Western Michigan University, 2010.*

Marie G. Bongiovanni, 1990–; *Professor of English. Chairperson of the Department of English. B.A., Temple University, 1977; M.B.A., Drexel University, 1982; M.L.A., University of Pennsylvania, 1996.*

Jean-Marc Braem, 2002–; *Associate Professor of French. Licencé, Université Libre de Bruxelles, 1980; M.A., Princeton University, 1985; Ph.D., 1989.*

J. Patrick Brewer, 1997–; *Associate Professor of Mathematical Sciences. B.S., Northern Arizona University, 1991; M.S., University of Oregon, 1993; Ph.D., 1997.*

James H. Broussard, 1983–; *Professor of History. A.B., Harvard University, 1963; M.A., Duke University, 1965; Ph.D., 1968.*

Steven Buzinski, 2011–; *Teaching Fellow in the Department of Psychology*. B.S., Lebanon Valley College, 2005; M.S., University of Maryland, 2008.

Robert Carey, 2010–; *Assistant Professor of Biology*. B.A., Hiram College, 1998; Ph.D., The Pennsylvania State University, 2006.

Treva Clark, 2010–; *Assistant Professor of Business Administration*. B.S., York College of Pennsylvania, 1983; M.B.A., Loyola College of Pennsylvania, 1991.

Ila Leigh Cobbs, 2009–; *Assistant Professor of Mathematical Sciences*. B.S., Texas A&M University, 2003; Ph.D., Rutgers University, 2009.

Rick M. Chamberlin, 2006–; *Associate Professor of German and French*. B.A., Hillsdale College, 1988; A.M., University of Michigan, 1990; Ph.D., 1997

Stan M. Dacko, 2003–; *Associate Professor of Physical Therapy. Chairperson of the Department of Physical Therapy*. B.A., Rutgers University, 1974; M.S., Boston University, 1983; Ph.D., Hahnemann University, 1997.

Michael A. Day, 1987–; *Professor of Physics*. B.S., University of Idaho, 1969; M.A., 1975, Ph.D., 1977, University of Nebraska (Philosophy); M.S., 1978, Ph.D., 1983, University of Nebraska (Physics).

Will Delavan, 2009–; *Assistant Professor of Economics*. B.A., Boston College, 1985; M.S., 1997, Ph.D. 2003, The Pennsylvania State University.

Johannes M. Dietrich, 1995–; *Professor of Music*. B.M., Montana State University, 1990; M.M., University of Cincinnati College-Conservatory of Music, 1992; D.M.A., 1996.

Deanna L. Dodson, 1994–; *Professor of Psychology*. B.S., Tennessee Technological University, 1985; M.S., Memphis State University, 1988; Ph.D., 1992.

Christopher J. Dolan, 2007–; *Associate Professor of Political Science*. B.A., Siena College, 1995; M.A., Northeastern University, 1997; Ph.D., University of South Carolina, 2002.

Laura G. Eldred, 2007–; *Assistant Professor of English*. B.A., College of William and Mary, 1998; M.A., University of North Carolina at Chapel Hill, 2000; Ph.D., 2006.

Marcia Epler, 2003–; *Associate Professor of Physical Therapy*. B.A., Ithaca College, 1973; B.S., 1975; M.Ed., Temple University, 1981; Ph.D., 1996.

Scott H. Eggert, 1983–; *Professor of Music*. B.F.A., University of Wisconsin (Milwaukee), 1971; M.A., University of Chicago, 1974; D.M.A., University of Kansas, 1982.

Dale J. Erskine, 1983–; *Professor of Biology. Chairperson of the Department of Biology*. B.A., University of Maine at Portland, 1974; M.A., State University of New York at Buffalo, 1976; Ph.D., University of Oklahoma, 1981.

Michael Fink, 2009–; *Assistant Professor of Physical Therapy*. B.S. Thomas Jefferson University, 2000; M.S., 2000; D.S.C. Baylor University, 2005.

Elizabeth M. French, 2010–; *Assistant Professor of Education*. B.S., Mansfield University, 1972; M.Ed., 1975.

Michael D. Fry, 1983–; *Professor of Mathematical Sciences*. B.A., Immaculate Heart College, 1975; Ph.D., University of Illinois, 1980.

Eric Fung, 2005–; *Associate Professor of Music*. B.M., The Eastman School of Music, 1997; M.M., The Eastman School of Music, 1999; D.M.A., The Juilliard School, 2005.

Carmen García-Armero, 2010–; *Assistant Professor of Spanish*. B.A., Valencia University, 1992; M.A., University of North Carolina at Chapel Hill, 2001; Ph.D., University of Virginia, 2009.

Claudia C. Gazsi, 2001–; *Assistant Professor of Physical Therapy. Academic Coordinator of Clinical Education*. B.S., West Virginia University, 1981; M.H.A., The Pennsylvania State University, 2000.

Cheryl George, 1998–; *Professor of Education*. B.S., Texas Christian University, 1984; M.Ed., University of North Texas, 1988; Ph.D., 1993.

Marianne Goodfellow, 2006–; *Associate Professor of Sociology*. B.A., State University of New York, College of Arts and Sciences at Plattsburgh, 1979; M.A., The Pennsylvania State University, 1982; Ph.D., The Pennsylvania State University, 1995.

Stacy A. Goodman, 1996–; *Professor of Biology*. B.S., Westminster College, 1991; Ph.D., The Pennsylvania State University, 1996.

Michael R. Green, 2009–; *Vice President for Academic Affairs and Dean of the Faculty, Professor of Humanities*. B.M.E., Illinois State University, 1982; M.Mus., University of Indiana, 1984; D.M.A., University of Iowa, 1988.

Gary Grieve-Carlson, 1990–; *Professor of English. Director of General Education. B.A., Bates College, 1977; M.A., Binghamton University, 1980; Ph.D., Boston University, 1988.*

Ivette Guzmán-Zavala, 2007–; *Assistant Professor of Spanish. B.A., University of Puerto Rico, 1991; M.A., Syracuse University, 1998; Ph.D., Rutgers University, New Brunswick, 2004.*

Kshama Harpankar, 2011–; *Visiting Assistant Professor of Economics. B.A., University of Mumbai, 1997; M.A., 1999; M.Phil., Indian Institute of Technology, 2001; Ph.D., University of Minnesota, 2008.*

Carolyn R. Hanes, 1977–; *Professor of Sociology. B.A., Central Michigan University, 1969; M.A., University of New Hampshire, 1973; Ph.D., 1976.*

Marc A. Harris, 2000–; *Associate Professor of Chemistry. B.A., University of Arizona, 1994; Ph.D., University of Nevada at Reno, 1999.*

Christopher J. Heffner, 2008–; *Assistant Professor of Music; B.M.E., Western Kentucky University, 1997; M.M., University of Florida, 2003; Ph.D., 2007.*

Barry R. Hill, 1993–; *Professor of Music. Director of the Music Recording Technology Program. B.S., Music with Recording Arts, University of North Carolina at Asheville, 1989; M.M., New York University, 1996.*

John H. Hinshaw, 2000–; *Associate Professor of History. Chairperson of the Department of History and Political Science. B.A., Macalester College, 1985; M.A., Carnegie Mellon University, 1988; Ph.D., 1995.*

J. Noel Hubler, 1995–; *Professor of Philosophy. Chairperson of the Department of Religion and Philosophy; B.A., University of Pennsylvania, 1981; Ph.D., 1995.*

Barry L. Hurst, 1982–; *Associate Professor of Physics. B.S., Juniata College, 1972; Ph.D., University of Delaware, 1982.*

Diane E. Johnson, 2004–; *Associate Professor of Political Science. B.A., Pepperdine University, 1980; M.A., California State University, Fresno, 1983; M.A., 1993; M.A., University of California, Santa Barbara, 1999; Ph.D., 2003.*

Cynthia R. Johnston, 1991–; *Lecturer in Chemistry. B.S., Lebanon Valley College, 1987.*

Nikolay Karkov, 2011–; *Teaching Fellow in the Department of Religion and Philosophy. B.A., American University in Bulgaria; M.A., State University of New York at Binghamton, 2002; Ph.D., 2010.*

Michael B. Kitchens, 2007–; *Assistant Professor of Psychology. B.A., University of Mobile, 2000; M.A., University of Mississippi, 2004; Ph.D., 2007.*

Donald E. Kline, 1997–; *Associate Professor of Education. Co-chairperson of the Department of Education. B.S., Lebanon Valley College, 1966; M.Ed., Millersville University, 1975; M.S.Ed., Shippensburg University, 1977; Ed.D., Lehigh University, 1990.*

Joel A. Kline, 1999–; *Associate Professor of Digital Communications. A.S., Harrisburg Area Community College, 1985; B.S., B.A., Lebanon Valley College, 1989; M.J.P.R.A., Temple University, 2002; A.B.D., Texas Technological University, 2009.*

Samuel Kolins, 2011–; *Assistant Professor of Mathematical Sciences. B.A., Bowdoin College, 2006; M.S., Cornell University, 2009; Ph.D., 2011.*

Walter Labonte, 1992–; *Instructor in English. Director of Writing Center. B.S., Northeastern University, 1968; M.A., 1977; M.Ed., Curry College, 1984.*

Louis B. Laguna, 1999–; *Associate Professor of Psychology. B.S., The Pennsylvania State University, 1990; M.S., Millersville University of Pennsylvania, 1992; M.A., University of Nebraska, 1995; Ph.D., 1998.*

Courtney M. Lappas, 2008–; *Assistant Professor of Biology. B.S., University of Richmond, 2000; M.S., University of Virginia, 2003; Ph.D., 2006.*

Michael E. Lehr, 2008–; *Clinical Assistant Professor of Physical Therapy. B.S., Lock Haven University, 1995; M.P.T., University of the Sciences in Philadelphia, 1999; DPT, Temple University, 2010.*

Mary L. Lemons, 1996–; *Professor of Music. Director of the Music Education Program. B.S., University of Illinois at Urbana-Champaign; M.S., 1990; Ed.D., 1998.*

Robert W. Leonard, 1988–; *Professor of Business Administration. B.A., Ohio University, 1977; M.A., St. Francis School of Industrial Relations, 1978; M.B.A., Ohio State University, 1986.*

Rebecca C. Lister, 2003–; *Associate Professor of Music. B.M., James Madison University, 1988; M.M., Florida State University, 1992; D.M., 1997.*

Jeffrey Lovell, 2011–; *Assistant Professor of Music. B.M., Brigham Young University, 2001; M.A., Rutgers University, 2003.*

David W. Lyons, 2000–; *Professor of Mathematical Sciences*. B.S., Davidson College, 1981; Ph.D., University of North Carolina at Chapel Hill, 1996.

Stephen C. MacDonald, 1998–; *President, Professor of Humanities*. B.A. Tufts University, 1969; Ph.D., University of Virginia, 1977.

Louis Manza, 1995–; *Professor of Psychology. Chairperson of the Department of Psychology. Director of Youth Scholars Institute*, 2009. B.A., State University of New York at Binghamton, 1988; M.A., Brooklyn College, 1991; M.Phil., City University of New York, 1991; Ph.D., 1992.

Victoria G. Marchese, 2007–; *Assistant Professor of Physical Therapy*. B.S., University of Tennessee, 1994; Ph.D., MCP Hahnemann, 2001.

Anderson L. Marsh, 2005–; *Associate Professor of Chemistry*. B.S., Hampden-Sydney College, 1998; Ph.D., University of Michigan, 2003.

G. Daniel Massad, 1985–; *Artist-in-Residence*. B.A., Princeton University, 1969; M.A., University of Chicago, 1977; M.F.A., University of Kansas, 1982.

Rebecca McCoy, 1998–; *Associate Professor of History. Chairperson of the Department of History and Political Science*. A.B., Mount Holyoke College, 1975; M.A., University of North Carolina, 1980; Ph.D., 1992.

Gabriela McEvoy, 2009–; *Assistant Professor of Spanish*. A.A., San Diego Miramar College, 2001; B.A., University of California, 2003; M.A., 2006.

Mark L. Mecham, 1990–; *Clark and Edna Carmean Distinguished Professor of Music. Chairperson of the Department of Music*. B.M., University of Utah, 1976; M.M., 1978; D.M.A., University of Illinois at Urbana-Champaign, 1985.

Joerg Meindl, 2009–; *Assistant Professor of German*. M.A., Reprecht-Karls-Universität Heidelberg, 2002; Ph.D., University of Kansas, 2009.

Owen A. Moe Jr., 1973–; *Vernon and Doris Bishop Distinguished Professor of Chemistry. Chairperson of the Department of Chemistry*. B.A., St. Olaf's College, 1966; Ph.D., Purdue University, 1971.

Shelly Moorman-Stahlman, 1997–; *Professor of Music*. B.Mus., University of Missouri-Kansas City, 1985; M.M., 1986; D.M.A., University of Iowa, 1990.

Robin Myers, 2011–; *Clinical Assistant Professor of Physical Therapy*. B.S., University of Florida, 1994; DPT, MGH Institute of Health Professions, 2009.

Minna J. Niemi, 2011–; *Teaching Fellow in the Department of English*. M.A., University of Turku, Finland, 2010;

Michelle Niculescu, 2007–; *Assistant Professor of Psychology*. B.S., Muhlenberg College, 1999; Ph.D., Temple University, School of Medicine, 2005.

Renee Lapp Norris, 2002–; *Associate Professor of Music*. B.A., West Chester University, 1991; M.M., University of Maryland, 1994; Ph.D., 2001.

Kathryn N. Oriel, 2005–; *Associate Professor of Physical Therapy*. B.S., University of Sciences, Philadelphia, 2000; Ed.D., Idaho State University, 2003.

Walter A. Patton, 1999–; *Associate Professor of Chemistry*. B.S., Susquehanna University, 1988; Ph.D., Lehigh University, 1993.

Timothy J. Peelen, 2005–; *Associate Professor of Chemistry*. B.S., Calvin College 1996; Ph.D., University of Pittsburgh, 2002.

Mary K. Pettice, 1994–; *Associate Professor of English*. B.A., Illinois Wesleyan University, 1982; M.S., University of Illinois, 1983; M.A. 1986; Ph.D., University of Houston, 1994.

Michael Pittari, 2002–; *Associate Professor of Art. Chairperson of the Department of Art and Art History*. B.F.A., University of Florida, 1989; M.F.A., University of Tennessee, 1995

Kevin B. Pry, 1991–; *Associate Professor of English*. B.A., Lebanon Valley College, 1976; M.A., The Pennsylvania State University, 1980; Ph.D., 1984.

Jeffrey J. Ritchie, 2002–; *Associate Professor of Digital Communications, Chairperson of the Department of Digital Communications*. B.S. and B.A., Indiana University, 1989; M.A., University of South Carolina, 1993; M.Ed., Arizona State University, 1998; Ph.D., 2000.

Jeffrey W. Robbins, 2002–; *Associate Professor of Religion. Director of the American Studies Program*. B.A., Baylor University, 1994; M.Div., Texas Christian University, 1997; M.Phil., Syracuse University, 1999; Ph.D., 2001.



Catherine Romagnolo, 2004–; *Associate Professor of English*. B.S., *University of Florida*, 1991; M.A., *University of Maryland*, 1997; Ph.D., 2003.

Victoria Rose, 2003–; *Assistant Professor of Music*. B.M., *Peabody Conservatory of the Johns Hopkins University*, 1972; M.M., *Towson State University*, 1994.

David Rudd, 2005–; *Professor of Business Administration. Chairperson of the Department of Business and Economics*. B.S., *University of Wisconsin*, 1966; M.B.A., *University of Minnesota*, 1973; Ph.D., *George Washington University* 1996.

Gail A. Sanderson, 1983–; *Professor of Accounting*. B.A., *Hobart and William Smith Colleges*, 1970; M.B.A., *Boston University*, 1977.

Matthew Samuel, 2010–; *Assistant Professor of Digital Communications*. B.F.A., *Maryland Institute College of Art*, 1998; M.A., 2000.

Matthew R. Sayers, 2008–; *Assistant Professor of Religion*. B.A. *University of Maryland Baltimore County*, 2000; M.A., *Florida State University*, 2002; Ph.D., *University of Texas, Austin*.

Michael J. Schroeder, 2008–; *Assistant Professor of History*. B.A., *University of Minnesota*, 1987; Ph.D., *University of Michigan*, 1993.

David M. Setley, 2008–; *Assistant Professor of Business Administration*. B.S.B.A., *Kutztown University*, 1977; M.B.A., 2000; D.B.A., *Nova Southeastern University*, 2005.

Daniel Simpkins, 1998–; *Lecturer in Sociology*. B.A., *West Georgia College*, 1976; M.A., *University of North Carolina at Chapel Hill*, 1984; Ph.D., 1992.

Kerrie D. Smedley, 1997–; *Associate Professor of Psychology*. B.S., *The Pennsylvania State University*, 1990; B.Ed., 1991; M.A., *University of Nebraska*, 1996; Ph.D., 1997.

Barry R. Smith, 2010–; *Assistant Professor of Mathematical Sciences*. B.A., B.S., *University of California at San Diego*, 2000; M.A., 2003; Ph.D., 2007.

Jeff Snyder, 1997–; *Associate Professor of Music. Director of Music Recording Technology Program*. A.A., *Pensacola Junior College*, 1982; B.A., *University of West Florida*, 1984; M.S., *Kutztown University*, 1998.

Thomas M. Strohman, 1977–1983; 1987–; *Professor of Music*. B.S., *Lebanon Valley College*, 1975; M.M., *Towson State University*, 1998.

Edward J. Sullivan, 2001–; *Professor of Business Administration and Economics*. B.S., *St. Peter's College*, 1972; M.A., *The Pennsylvania State University*, 1975; Ph.D., 1985.

Dale E. Summers, 1990–; *Professor of Education. Director of Elementary and Secondary School Relations*. B.S., *Ball State University*, 1971; M.A., 1973; Ed.D., 1978.

Linda L. Summers, 1991–; *Assistant Professor of Education*. B.S., *Ball State University*, 1972; M.A., 1977.

Kathleen Tancelosky, 2011–; *Associate Professor of Spanish. Chairperson of the Department of Languages*. B.A., *Ursinus College*, 1985; M.A., *West Chester University*, 1990; Ph.D., *University of Texas at Arlington*, 1998.

Grant D. Taylor, 2005–; *Associate Professor of Art History*. B.F.A., *University of Western Australia*, 2000; Ph.D., 2005.

Rebecca A. Urban, 2008–; *Assistant Professor of Biology*. B.S., *Binghamton University*, 2001; M.S., 2004; Ph.D., 2008.

Beth Wrenn Underwood, 2010–; *Lecturer in Italian*. B.S.L.A., *Georgetown University*, 1979; M.A., *Middlebury College*, 1987.

Noëlle Vahanian, 2005–; *Associate Professor of Philosophy. Baccalauréat, Lycée International des Pontonniers*, 1988; B.A., *Syracuse University*; M.A., M.Phil., Ph.D., 1999.

Robert T. Valgenti, 2006–; *Assistant Professor of Philosophy*. B.A., *College of the Holy Cross*, 1993; M.A., *Fairleigh Dickinson University*, 1998; Ph.D., *DePaul University*, 2006.

Robert Vucic, 2009–; *Lecturer in English and Advisor, LaVie Collegienne*. B.A., *Point Park University*, 1970.

Scott N. Walck, 1999–; *Professor of Physics. Chairperson of the Department of Physics*. B.S., *Rensselaer Polytechnic Institute*, 1988; M.S., *Lehigh University*, 1992; Ph.D., 1995.

Karen Walker, 2005; *Associate Professor of Education*. B.A., *California State University, Los Angeles*, 1974; M.Ed., *California State University, Los Angeles* 1986; Ed.D., *Bowling Green State University*, 2001.

Allan F. Wolfe, 1968–; *Professor of Biology. B.A., Gettysburg College, 1963; M.A., Drake University, 1965; Ph.D., University of Vermont, 1968.*

Kenneth Yarnall, 1996–; *Associate Professor of Mathematical Sciences. Chairperson of the Department of Mathematical Sciences. B.S., South Carolina College, 1986; Ph.D., University of South Carolina, 1992.*

M. Jane Yingling, 2001–; *Associate Professor of Education. Co-chairperson of the Department of Education. B.S., Lock Haven University, 1972; M.A., Shippensburg University, 1996; Ph.D., Marywood University, 2004.*

### *Adjuncts in Medical Technology (Clinical Laboratory Science)*

*Clinical Laboratory Science Program at Lancaster General College of Nursing and Health Science: Program Director, Mary Wood, MS, MT (ASCP).*

### *Emeriti*

Madelyn J. Albrecht, 1973–1990; *Associate Professor Emerita of Education. B.A., Northern Baptist College, 1952; M.A., Michigan State University, 1958; Ph.D., 1972.*

Barbara J. Anderman, 2001–2010; *Associate Professor Emerita of Art. B.A., M.A., University of St. Andrews, Scotland, 1971; M.A., Rutgers University, 1994; Ph.D., 2000.*

Howard L. Applegate, 1983–2000; *Professor Emeritus of History and American Studies. B.A., Drew University, 1957; M.A., Syracuse University, 1960; Ph.D., 1966.*

Susan L. Atkinson, 1987–2008; *Professor Emerita of Education. B.S., Shippensburg University, 1972; M.Ed. (Elementary Education), 1973; M.Ed. (Special Education), 1979; D.Ed., Temple University, 1987.*

Eloise P. Brown, 1961–1987; *Readers' Services Librarian Emerita. B.S.L.S., Simmons College, 1946.*

Donald E. Byrne, Jr., 1971–2005; *Professor Emeritus of Religion and American Studies. B.A., St. Paul Seminary, 1963; M.A., Marquette University, 1966; Ph.D., Duke University, 1972.*

Voorhis C. Cantrell, 1968–1992; *Professor Emeritus of Religion and Greek. B.A., Oklahoma City University, 1952; B.D., Southern Methodist University, 1956; Ph.D., Boston University, 1967.*

Richard F. Charles, 1988–1997; *Vice President Emeritus for Advancement. A.B., Franklin & Marshall College, 1953.*

Charles T. Cooper, 1965–1979; *Associate Professor Emeritus of Spanish. B.S., U.S. Naval Academy, 1942; M.A., Middlebury College, 1965.*

Richard D. Cornelius, 1985–2001; *Professor Emeritus of Chemistry. B.A., Carleton College, 1969; Ph.D., University of Iowa, 1974.*

Salvatore S. Cullari, 1986–2003; *Professor Emeritus of Psychology. B.A., Kean College, 1974; M.A., Western Michigan University, 1976; Ph.D., 1981.*

George D. Curfman, 1961–1996; *Professor Emeritus of Music Education. B.S., Lebanon Valley College, 1953; M.M., University of Michigan, 1957; Ed.D., The Pennsylvania State University, 1971.*

Donald B. Dahlberg, 1980–2001; *Professor Emeritus of Chemistry. B.S., University of Washington, 1967; M.S., Cornell University, 1969; Ph.D., 1971.*

Alice S. Diehl, 1966–1997; *Technical Processes Librarian Emerita. A.B., Smith College, 1956; B.S., Carnegie Institute of Technology, 1957; M.L.S., University of Pittsburgh, 1966.*

Phylis C. Dryden, 1987–2004; *Professor Emerita of English. B.A., Atlantic Union College, 1976; M.A., State University of New York at Albany, 1984; D.A., 1988.*

William H. Fairlamb, 1947–1990; *Professor Emeritus of Music. Mus.B., cum laude, Philadelphia Conservatory, 1949.*

Eleaine Feather, 1989–99, 2004–2010; *Director Emerita of Graduate Studies and Continuing Education. B.S., State University of New York at Cortland, 1965; M.S., State University of New York at Brockport, 1973.*

Arthur L. Ford, 1965–2001; *Professor Emeritus of English. A.B., Lebanon Valley College, 1959; M.A., Bowling Green State University, 1960; Ph.D., 1964.*

Michael A. Grella, 1980–2001; *Professor Emeritus of Education. B.A., St. Mary's Seminary and University, 1958; M.A., West Virginia University, 1970; Ed.D., 1974.*

Klement M. Hambourg, 1982–1995; *Professor Emeritus of Music*. A.T.C.M., Royal Conservatory of Music, 1946; L.R.A.M., Royal Academy of Music, 1962; A.R.C.M., Royal College of Music, 1962; L.T.C.L., Trinity College of Music (London), 1965; Fellow, 1966; D.M.A., University of Oregon, 1977.

Robert E. Hamilton,, 1986–2008; *Vice President Emeritus for Administration*. A.B., Messiah College, 1962; M.Ed., Shippensburg University, 1966; D.Ed., The Pennsylvania State University, 1972.

Robert E. Harnish, 1967–2006; *Manager of the College Store Emeritus*. B.A. Randolph Macon College, 1966.

Robert H. Hearson, 1986–2007; *Professor Emeritus of Music*. B.M., University of Iowa, 1964; M.A., 1965; Ed.D., University of Illinois, 1983.

Bryan V. Hearsey, 1971–2011; *Professor Emeritus of Mathematical Sciences*. Chairperson of the Department of Mathematical Sciences; B.A., Western Washington State College, 1964; M.A., Washington State University, 1966; Ph.D., 1968.

John H. Heffner,, 1972–2005; *Professor Emeritus of Philosophy*. B.S., Lebanon Valley College, 1968; B.A., 1987; A.M., Boston University, 1971; Ph.D., 1976; M.A.R., Lancaster Theological Seminary, 2002.

Paul Heise, 1991–2004; *Professor Emeritus of Economics*. B.S.F.S., Georgetown University, 1958; M.A., 1963; M.P.A., Harvard University, 1972; Ph.D., New School for Social Research, 1991.

Jeanne C. Hey, 1989–2004; *Professor Emerita of Economics*. B.A., Bucknell University, 1954; M.B.A., Lehigh University, 1982; Ph.D., 1990.

John P. Kearney, 1971–2006; *Professor Emeritus of English*. B.A., St. Benedict's College, 1962; M.A., University of Michigan, 1963; Ph.D., University of Wisconsin, 1968.

Nevelyn J. Knisely, 1963–2003; *Lecturer Professor Emerita of Music*. B.M., Oberlin College, 1951; M.F.A., Ohio University, 1953.

David I. Lasky, 1974–1995; *Professor Emeritus of Psychology*. A.B., Temple University, 1956; M.A., 1958; Ph.D., 1961.

Jean O. Love, 1954–1985; *Professor Emerita of Psychology*. A.B., Erskine College, 1941; M.A., Winthrop College, 1949; Ph.D., University of North Carolina, 1953.

Leon E. Markowicz, 1971–2008; *Professor Emeritus of Business Administration*. A.B., Duquesne University, 1964; M.A., University of Pennsylvania, 1968; Ph.D., 1972; M.A., Antioch University, 1998.

William J. McGill Jr., 1986–1998; *Senior Vice President and Dean of the Faculty Emeritus*. A.B., Trinity College, 1957; M.A., Harvard University, 1958; Ph.D., 1961.

Anna D. Faber McVay, 1954–1976; *Professor Emerita of English*. A.B., Lebanon Valley College, 1948; M.A., University of Wisconsin, 1950; Ph.D., 1954.

Philip G. Morgan, 1969–2003; *Professor Emeritus of Music*. B.M.E., Pittsburg State University (Kansas), 1962; M.S., 1965.

Roger M. Nelson, 2002–2011; *Professor Emeritus of Physical Therapy*. Certificate in Physical Therapy, 1965; M.S., Boston University, 1971; Ph.D., The University of Iowa, 1981.

John D. Norton, 1971–2006; *Professor Emeritus of Political Science*. B.A., University of Illinois, 1965; M.A., Florida State University, 1967; P.D., American University, 1973.

Sidney Pollack, 1976–2010; *Professor Emeritus of Biology*. B.A., New York University, 1963; Ph.D., University of Pennsylvania, 1970.

Barney T. Raffield III, 1990–2009; *Professor Emeritus of Business Administration*. B.B.A., Southern Methodist University, 1968; M.B.A., 1971; Ph.D., Union Graduate School, 1982.

Sharon Hall Raffield, 1990–2006; *Associate Professor Emeritus of Sociology*. A.B., Wheaton College, 1963; M.S.W., Washington University, 1967.

O. Kent Reed, 1971–2006; *Associate Professor Emeritus of Physical Education*. B.S., B.X. Otterbein College, 1956; M.A., Eastern Kentucky University, 1970.

Jacob L. Rhodes, 1957–1985; *Professor Emeritus of Physics*. B.S., Lebanon Valley College, 1943; Ph.D., University of Pennsylvania, 1958.

Frederick P. Sample, 1968–1983; *President Emeritus*. A.B. Lebanon Valley college, 1952; M.Ed., Western Maryland College, 1956; D.Ed., Pennsylvania State University, 1968.

James W. Scott, 1976–2009; *Professor Emeritus of German*. B.A., Juniata College, 1965; Ph.D., Princeton University, 1971.

Dennis W. Sweigart, 1972–2011; *Professor Emeritus of Music*. B.S., Lebanon Valley College, 1963; M.M., University of Michigan, 1965; D.M.A., University of Iowa, 1977.

Gregory G. Stanson, 1966–2006; *Vice President Emeritus for Enrollment and Student Services*. B.A., Lebanon Valley College, 1963; M.Ed., University of Toledo, 1966.

Joëlle L. Stopkie, 1989–2002; *Professor Emerita of French*. Licence, Sorbonne, 1960; M.A., New York University, 1963; Ph.D., Bryn Mawr College, 1979.

Warren K.A. Thompson, 1967–1997; *Professor Emeritus of Philosophy*. A.B., Trinity University, 1957; M.A., University of Texas, Austin, 1963.

Mark A. Townsend, 1983–2009; *Professor Emeritus of Mathematical Sciences*. B.S., Bethany Nazarene College, 1965; M.A., Oklahoma University, 1969; Ed.D., Oklahoma State University, 1983.

Perry J. Troutman, 1960–1994; *Professor Emeritus of Religion*. B.A., Houghton College, 1949; M.Div., United Theological Seminary, 1952; Ph.D., Boston University, 1964.

Susan E. Verhoek, 1974–2008; *Professor Emerita of Biology*. B.A., Ohio Wesleyan University, 1964; M.A., Indiana University, 1966; Ph.D., Cornell University, 1975.

L. Elbert Wethington, 1963–1983; *Professor Emeritus of Religion*. B.A., Wake Forest, 1944; B.D., Divinity School of Duke University, 1947; Ph.D., Duke University.

Stephen E. Williams, 1973–2008; *Professor Emeritus of Biology*. B.A., Central College, 1964; M.S., University of Tennessee, 1966; Ph.D., Washington University, St. Louis, 1971.

Juliana Z. Wolfe, 1975–1978, 1979–2010; *Director Emerita of the College Health Center*. R.N. Diploma, St. Joseph's Hospital.

Paul L. Wolf, 1966–2008; *Professor of Emeritus Biology*. B.S., Elizabethtown College, 1960; M.S., University of Delaware, 1963; Ph.D., 1968.

Glenn H. Woods, 1965–1990; *Associate Professor Emeritus of English*. A.B., Lebanon Valley College, 1951; M.Ed., Temple University, 1962.

## COLLEGE SUPPORT STAFF

Joy L. Albright.....	Information Technology Services Office
Deborah L. Atkins .....	Music Department
Debra J. Bishop .....	College Center
Judith S. Blouch.....	Academic Support and Disabilities Services Office
Marilyn E. Boeshore.....	Alumni Office
Carol L. Brashear.....	Physical Therapy Department
Donna L. Brickley .....	Information Technology Services Office
Jo Lynn Brummer .....	Development Office
Wendy L. Carfagno .....	President of the College Office
Becky Chanas .....	Library
Scott J. Conrad.....	Library
Rebecca M. Corum.....	History, Languages, Religion and Philosophy, General Education Departments
Marjorie E. Coughlan .....	Registrar's Office
Susan L. Donmoyer .....	Career Services Office
Becky A. Firestone .....	Registrar's Office
Mary E. Fisher.....	Academic Affairs and Dean of the Faculty Office
Lisa D. Funk .....	Chaplain's Office
Cheryl A. George.....	Media Center
Tara N. Gerstner .....	Business Office
69 Lebanon Valley College	2011-12 Catalog – Volume II

Susan M. Greenawalt.....	Graduate Studies and Continuing Education Office
Daniel J. Grodzinski.....	LVC Sports Center
James J. Haley.....	Library
Nancy J. Hartman.....	Business Office
Pamela S. Hillegas.....	Athletic Office
Susan K. Hinkle.....	Admission Office
Melodie Hoff.....	Advancement Office
Constance W. Kershner.....	Business Office
Lynne S. Konan.....	Physical Therapy Department
Susan M. Krall.....	Library
Charlene R. Kreider.....	Human Resources/Payroll Office
Deborah L. Lutz.....	Advancement Office
Christine M. Martin.....	MSE Office
Gina Messenger.....	Admission Office
Tammy L. Miller.....	College Store
Tami S. Morgan.....	Admission Office
Karen R. Nelson.....	Admission Office
James F. O'Brien.....	LVC Sports Center
Ann K. Pinca.....	Administration and Finance Office
Jill M. Rabuck.....	Annual Giving Office
Christine M. Reeves.....	Development Office
L. Anne Ristenbatt.....	Copy Center and Mail Services
Alice J. Rulapaugh.....	Student Affairs Office
Carol A. Sabados.....	Biology Department
Denise D. Sanders.....	Education Department
Jacqueline Scacco.....	Business and Economics Department
Wendy Smith.....	Academic Services Office
Paul Snyder.....	Information Technology Services Office
Susan M. Snyder.....	Mathematical Sciences, Art and Art History, and Psychology Departments
Jay L. Sorrentino.....	Athletic Equipment Room
Sharon L. Stamm.....	English; Political Science; and Sociology and Criminal Justice Departments
Alisa K. Sterner.....	Information Technology Services Office
Rosemary Troebliker.....	Administration and Finance Office
LaRue A. Troutman.....	Financial Aid Office
Nathaniel C. Tulli.....	Information Technology Services Office
Matthew P. Velazquez.....	Information Technology Services Office
Barbara E. West.....	Chemistry and Physics Departments
Sarah R. Wickenheiser.....	LVC Sports Center
Anita L. Williams.....	Marketing and Communications Office
Joshua Young.....	Information Technology Services Office

## **STATEMENT ON NON-DISCRIMINATION**

Lebanon Valley College does not discriminate on the basis of race, color, religion, gender, national origin, age, sexual orientation, disability, or age in its programs or activities. The College is committed to a policy of equal opportunity in all aspects of employment, including application, promotion, and transfer. Anyone who believes that he/she has been subjected to discrimination in violation of this policy is encouraged to report the problem to the Director of Human Resources/EEO/Title IX Coordinator or the Vice President for Academic Affairs.

## TEACHING AWARDS

### THE THOMAS RHYS VICKROY DISTINGUISHED TEACHING AWARDS

The Vickroy Award recipient, who must be a full-time member of the College faculty, is selected by the president of the College after appropriate consultation with alumni, students, faculty and staff. The Vickroy Award replaces the Lindback Award, which was presented through the 1993 academic year.

#### Previous Awardees

1985	Leon E. Markowicz, Ph.D., Professor of English
1986	Carolyn R. Hanes, Ph.D., Professor of Sociology and Social Work and Leadership Studies
1987	Donald E. Byrne Jr., Ph.D., Professor of Religion
1987	Mark A. Townsend, Ed.D., Assistant Professor of Mathematical Sciences
1988	William H. Fairlamb, Mus.B., Professor of Music
1989	Paul L. Wolf, Ph.D., Professor of Biology
1990	Owen A. Moe Jr., Ph.D., Professor of Chemistry
1991	Scott H. Eggert, D.M.A., Associate Professor of Music
1992	Gary Grieve-Carlson, Ph.D., Assistant Professor of English
1993	Diane M. Iglesias, Ph.D., Professor of Spanish
1994	Sidney Pollack, Ph.D., Professor of Biology and Barbara S. Vlaisavljevic, M.B.A., Assistant Professor of Accounting
1995	David I. Lasky, Ph.D., Professor of Psychology
1996	James W. Scott, Ph.D., Professor of German
1997	Howard L. Applegate, Ph.D., Professor of History and American Studies
1998	Mark L. Mecham, D.M.A., Professor of Music
1999	Michael A. Day, Ph.D., Professor of Physics
2000	Jeanne C. Hey, Ph.D., Associate Professor of Economics
2001	Allan F. Wolfe, Ph.D., Professor of Biology
2002	Marie G. Bongiovanni, M.L.A., Associate Professor of English
2003	Carl T. Wigal, Ph.D., Professor of Chemistry
2004	Mary L. Lemons, Ed.D., Associate Professor of Music
2005	Jeffrey W. Robbins, Ph.D., Assistant Professor of Religion
2006	J. Patrick Brewer, Ph.D., Associate Professor of Mathematical Sciences
2007	Philip A. Billings, Ph.D., Professor of English
2008	M. Jane Yingling, Ph.D., Associate Professor of Education
2009	Scott N. Walck, Ph.D., Associate Professor of Physics
2010	Grant D. Taylor, Ph.D., Assistant Professor of Art History and Digital Communications
2011	Catherine Romagnolo, Ph.D., Assistant Professor of English

## THE NEVELYN J. KNISLEY AWARD FOR INSPIRATIONAL TEACHING

In 1988, Lebanon Valley College created an award for part-time and adjunct members of the college faculty similar to the philosophy of the Vickroy Award. The first awardee was Nevelyn J. Knisley. After the presentation of the first award, the president of the College named this series of awards for Mrs. Knisley in recognition for her 24 years of inspired teaching in music.

### Previous Awardees

1988	Nevelyn J. Knisley, M.F.A., Adjunct Associate Professor of Music
1989	Carolyn B. Scott, B.A., Adjunct Instructor in French
1990	Michael J. Asken, Ph.D., Adjunct Associate Professor of Psychology
1991	Joanne Cole Rosen, B.A., Adjunct Assistant Professor of Chemistry
1992	Kevin B. Pry, Ph.D., Adjunct Assistant Professor of English
1993	Thomas M. Strohman, B.S., Adjunct Instructor in Music
1994	Timothy M. Dewald, M.Div., Adjunct Instructor in Mathematical Sciences
1995	Léonie Lang-Hambourg, M.A., Adjunct Assistant Professor of German
1996	Cynthia R. Johnston, B.S., Adjunct Instructor in Chemistry
1997	Richard J. Tushup, Ph.D., Adjunct Assistant Professor of Psychology
1998	Arlen J. Greiner, M.S., Adjunct Assistant Professor of Physics
1999	Leslie E. Bowen, M.F.A., Lecturer in Art
2000	Patricia M. Meley, M.A., Adjunct Instructor in American Studies
2001	Robert A. Nowak, M.M., Adjunct Assistant Professor of Music
2002	Gene G. Veno, M.P.A., Adjunct Instructor in Business Administration
2003	Marion M. Markowicz, M.S.S., Adjunct Instructor in Sociology
2004	Jeff Remington, M.Ed., Adjunct Instructor in Science Education
2005	James A. Erdman II, Adjunct Instructor in Music.
2006	Marie Riegle-Kinch, M.F.A., Adjunct Assistant Professor of Art
2007	Anna F. Tilberg, B.A., Adjunct Instructor in Biology
2008	Joseph D. Mixon, M.M., Adjunct Instructor in Music
2009	Rachel R. Luckenbill, M.A., Lecturer in English
2010	Theresa Bowley, M.A., Adjunct Instructor in French
2011	Nancy Williams, M.Ed., Adjunct Instructor of Art and Art Education